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**OTHER TRANSACTIONS FOR PROTOTYPES
AS USED IN THE
COMMERCIAL OPERATIONS AND SUPPORT SAVINGS
INITIATIVE 1997: A CONTRACTORS' PERSPECTIVE**

by

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June 1998

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The Commercial Operations and Support Savings Initiative (COSSI) is a Government effort to reduce Operations and Support (O&S) costs by inserting commercial products and processes into fielded military systems. This initiative utilizes Other Transactions for Prototypes, also known as Section 845 Agreements, to attract non-traditional Government contractors and to speed the development of prototype kits for insertion. This thesis examines the benefits and limitations, from the contractors' perspective, of using Section 845 Agreements, as applied in COSSI 97. The Researcher concludes that the participants found the Agreements to be effective tools that fostered improved relations with the Government. The Agreement also resulted in an expanded vendor base; six of the 30 participants are non-traditional contractors and would not have participated, had an Agreement not been used. The Researcher concludes that the participants identified the Government's inexperience with the Agreement as a major limitation. The research also shows that the full potential of the Authority can only be achieved by innovative, trained Agreements Officers who are knowledgeable of the program's objectives. The Researcher makes several recommendations for an agency using or preparing to use the Authority; one of which is to provide follow-on training for non-traditional contractors.

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COMMERCIAL OPERATIONS AND SUPPORT SAVINGS
INITIATIVE 1997: A CONTRACTORS' PERSPECTIVE**

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Submitted in partial fulfillment of the
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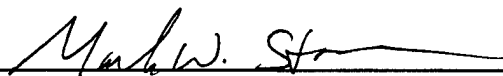
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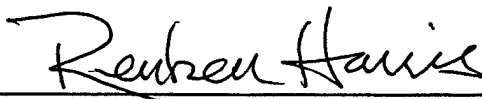
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ABSTRACT

The Commercial Operations and Support Savings Initiative (COSSI) is a Government effort to reduce Operations and Support (O&S) costs by inserting commercial products and processes into fielded military systems. This initiative utilizes Other Transactions for Prototypes, also known as Section 845 Agreements, to attract non-traditional Government contractors and to speed the development of prototype kits for insertion. This thesis examines the benefits and limitations, from the contractors' perspective, of using Section 845 Agreements, as applied in COSSI 97.

The Researcher concludes that the participants found the Agreements to be effective tools that fostered improved relations with the Government. The Agreement also resulted in an expanded vendor base; six of the 30 participants are non-traditional contractors and would not have participated, had an Agreement not been used.

The Researcher concludes that the participants identified the Government's inexperience with the Agreement as a major limitation. The research also shows that the full potential of the Authority can only be achieved by innovative, trained Agreements Officers who are knowledgeable of the program's objectives.

The Researcher makes several recommendations for an agency using or preparing to use the Authority; one of which is to provide follow-on training for non-traditional contractors.

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I. INTRODUCTION

A. BACKGROUND

In 1993, William J. Perry, the U.S. Secretary of Defense, addressed the severity of the growing gap between the commercial sector and defense industrial base when he stated, "The new technologies that are most critical to our technological advantage—computers, software, semiconductors, telecommunication—are all being driven by commercial, not defense markets." [Ref. 36:p. 3] He called for the military to "...Get on the shoulders of these commercial industries so that we can take full advantage of them." [Ref. 36:p. 3] But even today, getting on their "shoulders" is easier said than done. An ocean of divergent bureaucratic and administrative systems still separate Government practices from commercial industry practices and often prevent the military from acquiring leading edge technology. Overcoming these barriers is not possible with a "business as usual" mentality; it requires new, innovative ways of doing business.

One such innovative effort is the use of Other Transactions (OT). Legislation in 1989, which was codified at 10 U.S.C. § 2371, gave the Defense Advanced Research Projects Agency (DARPA) the authority to "enter into transactions other than contracts, cooperative agreements, and grants." [Ref. 43:2371] DARPA has interpreted the statute to mean that OTs are a class of transactions outside the procurement and assistance laws and regulations including the Federal Acquisition Regulation (FAR), Defense Federal Acquisition Regulation Supplement (DFARS) or other laws and regulations specific to the procurement system. [Ref. 16:p. 35]

This type of agreement is therefore much more flexible than a standard contract. For example, in general, OTs allow for the negotiation of intellectual property rights, the acceptance of commercial accounting systems, and do not require Government cost audits. The initial OT Authority was granted only to DARPA and was limited to conducting research. This type of OT is referred to as OTs for Research or §2371 Agreement. Over the last several years, Congress has granted the Services §2371 Authority and permitted the application of OTs to a broader area of acquisition, including technology demonstrations and prototypes. In contrast to the original authority, this is referred to as an OT for Prototype or by the amendment from which it was created, a Section 845 Agreement.

One pilot initiative, organized by DARPA and sponsored by the Dual Use Applications Program (DUAP), which broadly applies the use of Section 845 Authority, is the Commercial Operations and Support Savings Initiative (COSSI). COSSI's purpose is to develop and test a method for reducing Department of Defense Operations and Support (O&S) costs by inserting commercial products and processes into fielded military systems. The insertion of commercial products and processes is expected to reduce O&S costs by reducing the costs of parts and maintenance, reducing the need for specialized equipment, increasing reliability and increasing the efficiency of subsystems. [Ref. 29:p. 2.1]

This initiative is divided into two stages. During Stage I, each selected contractor will conduct non-recurring engineering (NRE) required to create a kit that can be used in

a fielded military system. Stage II is the actual purchase of a reasonable production quantity of kits and then the insertion of kits. The general intent of using an OT is to attract those businesses that would generally not do business with the Government for fear of its regulatory grasp, reduce costs by cutting down on required oversight and to speed up development of the item.

Congress appropriated \$100 million in fiscal year 97 (FY97) for COSSI (COSSI 97) but did not appropriate funds for COSSI 98. Plans for COSSI 99 are underway and according to a Congressional source cited in the Defense News, "Prospects for full funding are bright for 1999." [Ref. 34:p. 6]

B. OBJECTIVES OF THE RESEARCH

The primary objective of this research is to identify what the contractors perceive as the benefits and limitations of an agreement crafted with Section 845 Authority as applied in COSSI 97. Additional objectives include categorizing the firms that participated as either traditional or non-traditional Government contractors; identifying how important the perceived benefits of an OT were in attracting firms to respond to the COSSI solicitation; and determining if the contractors would participate in another Section 845 Agreement.

C. RESEARCH QUESTIONS

1. Primary Research Question

From the contractors' perspective, what are the benefits and limitations of using Other Transactions (Section 845 Agreements) as applied in the Commercial Operations and Support Savings Initiative (COSSI) 1997?

2. Subsidiary:

- a. What are Section 845 Agreements?
- b. What is the Commercial Operations and Support Savings Initiative (COSSI) 1997?
- c. Was the use of a Section 845 Agreement a primary factor in attracting firms to respond to the COSSI solicitation?
- d. Were the firms selected for COSSI 97 Traditional or Non-traditional Government contractors?
- e. What benefits have the contractors found when participating in an agreement crafted with Section 845 Authority?
- f. What limitations have the contractors found when participating in an agreement crafted with Section 845 Authority?
- g. Based on their COSSI experience, would the contractors enter into another Section 845 Agreement?

D. SCOPE AND LIMITATIONS OF THE THESIS

1. Scope

The scope of this thesis is limited to the views of the 30 contractors participating in COSSI 97.

2. Limitations

Due to the extreme variances in the size of the companies, the position and level of involvement of the commercial Points of Contact (POC), the researcher was unable to ensure that all topics were addressed by each interviewee in the same level of detail. Because of these variances in the research population, the results of the interviews have not been tabulated for statistical purposes.

E. METHODOLOGY

The primary research objective of this thesis is to present the contractor's perspective of the benefits and limitations of an agreement crafted with Section 845 Authority. To meet this objective the researcher first conducted a literature review of sources including but not limited to, the following:

- Unclassified Department of Defense (DoD) publications;
- References, publications and electronic media available at the Naval Postgraduate School;
- Published academic research papers;
- Internet websites and homepages (DoD, commercial and academic)

The researcher then contacted the Government Agreements Officers for the 30 COSSI agreements and obtained appropriate Points of Contact (POC) for each commercial firm. The researcher conducted telephone interviews with at least one representative from each firm. All respondents were given the assurance of anonymity.

F. BENEFITS OF THE THESIS

This thesis will promote a greater understanding of the contractors' perception of the Section 845 Agreement. This improved understanding will lead to a more effective implementation of Section 845 Authority because it will assist policy makers and agreements officers in determining if the intended goals are in fact being communicated to and then internalized by the contractor.

By identifying those areas that the contractor finds most beneficial, this thesis will also highlight logical starting points for implementing change within the current, regulated acquisition system.

And finally, one last benefit is that this thesis will promote additional studies by identifying areas for further research.

G. ORGANIZATION OF THE THESIS

Chapter I. Introduction Identifies the focus and purpose of the thesis and states the primary and subsidiary research questions.

Chapter II. Background Provides the reader with an overview and necessary background information on Section 845 Authority and COSSI.

Chapter III. Interview Methodology and Responses Presents a description of the interview methodology and a categorization of the results.

Chapter IV. Analysis Provides analysis of the major benefits and limitations of an agreement crafted with Section 845 Authority.

Chapter V. Recommendation and Conclusions Provides the researcher's principal conclusions and recommendations from this study.

II. BACKGROUND

This chapter orients the reader for the remainder of the thesis. It first presents a brief description of the pertinent issues that underlie the drive for the Government to develop innovative ways of doing business, then presents background on the evolution of Section 845 Authority and ends with an overview of the Commercial Operations & Support Savings Initiative (COSSI).

A. ENVIRONMENT

There are many factors that have contributed to the Government's effort to improve how it does business. Two of these issues that pertain directly to OTs and to COSSI are discussed below.

1. Untapped Technology

Advanced technology is no longer the monopoly of the military and, increasingly, those that have the technology often refuse to do business with the Government. According to management consultant Robert Spreng, "A significant share of the most valuable research and product development activity in commercial companies is virtually unavailable to Federal Government, despite potential benefits to both parties." [Ref. 40:p. 3] He made this statement as part of a study which compared Department of Defense (DoD) Research, Development, Test and Engineering (RDT&E) contract awards, with Business Week Research & Development (R&D) scorecard and the Fortune 500 Industrials. Spreng found that "95% of the industry/group leaders that invested the greatest percentage of their sales in R&D received insignificant or no DoD RDT&E

awards.” [Ref. 40:p. 3] “These firms were usually on the leading edge of technology developments in their industry.” [Ref. 40:p. 3] Spreng concluded that:

Commercial firms will offer the Government significantly more of the needed state-of-the-art technologies, some right off of the laboratory shelf, when the Government can make available adequate protection for commercial intellectual property and incorporate the use of existing commercial accounting methods for R&D.” [Ref. 40:p. 3]

2. Operations and Support (O&S) Costs

It is certainly no surprise that as the defense budget shrinks, acquiring new weapon systems becomes increasingly difficult, if not impossible. This reliance on fielded weapon systems has brought to light the staggering expense of maintaining these systems. It is often reported that 70% of the life cycle costs of a weapon system are incurred after those systems are fielded. In a DoD news briefing, Paul Kaminski, the Under Secretary of Defense for Acquisition Technology, declared, "...this is a problem we have to attack in a fundamental way." [Ref. 32:p. 2] He views reducing O&S costs as a zero sum game. "Money that we don't have to spend for operating and support of those systems is money that, in turn, we can be spending on modernization." [Ref.32:p. 2]

B. OTHER TRANSACTIONS (OT)

1. §2371 Authority

Legislation in 1989, which was codified at 10 U.S.C. 2371, gave DARPA the authority to “enter into transactions other than contracts, cooperative agreements, and grants.” [Ref. 43] DARPA has interpreted the statute to mean that OTs are a class of transactions outside the procurement and assistance laws and regulations including the

Federal Acquisition Regulation (FAR), Defense Federal Acquisition Regulation Supplement (DFARS) or other laws and regulations specific to the procurement system.[Ref. 16: p. 35] "Laws of general applicability such as title VI of the Civil Rights Act, the trade Secrets Act, and Conflict of Interest statute are applicable." [Ref. 16:p. 35] This original authority was experimental in nature, valid only for a two year period. Statutory language restricted the use of OTs for those times when a standard contract or grant was not feasible or appropriate. Cost sharing, although not absolutely required, was to be used if "practicable." [Ref. 18:p. 2] The use was further restricted in that it could not be used for the principal purpose of acquiring goods and services for the direct benefit or use of the Federal Government. [Ref. 41:p. 5] This type of OT is therefore referred to as OTs for Research or §2371 Agreements. In 1991 Congress showed its support of the use of §2371 Agreements by making the authority permanent and by extending the authority to all Services.

2. Section 845 Authority

In 1993 Congress amended 10 U.S.C. §2371 to allow DARPA expanded use of OTs under Section 845. This authority was limited for a period of three years. As finally enacted, the text of the statute read as follows:

The Director of the Advanced Research Projects Agency may, under the authority of section 2371 of title 10, United States Code, carry out prototype projects that are directly relevant to weapons or weapon systems proposed to be acquired or developed by the Department of Defense. [Ref. 18:p. 3]

DARPA has interpreted "prototype projects that are directly relevant" to include subsystems, components and technologies as well as training, simulation, auxiliary and support equipment "directly relevant" to "weapons or weapons systems." [Ref. 16:p. 36] DARPA also interpreted the words "proposed to be acquired" in the broadest sense. "Certainly it does not mean that a formal requirement has already been established." [Ref. 16:p. 36] DARPA understands it to mean that, "If it [a prototype of some sort] works, it may be the kind of thing that we would buy." [Ref. 16:p. 36] This broad interpretation offers great latitude.

Section 845 Agreements also differed from §2371 Agreements in that do they not require cost sharing "to the extent practicable" and they do require competition to be used to the "maximum extent practicable." [Ref. 18:p. 8] The statute does not specify the type or characteristics of the competition.

Section 845 Authority does not extend into production. DARPA is seeking the legislative authority, which would allow an approved Section 845 prototype to transition directly into production, but has not yet obtained it. [Ref 17:p. 18] In a 1996 Memorandum, Rick Dunn, General Counsel for DARPA advises that:

If a Section 845 systems project involves innovative business and contracting practices, advanced planning must be done to obtain appropriate waivers and exemptions for business practices that will be carried over to the production program. This might include having the project designated a pilot acquisition program in order to obtain expanded waiver authority. [Ref. 18:p. 18]

Section 804 of National Defense Authorization Act for Fiscal Year 1997 extended the authority of Section 845 through September 30, 1999, and made it available to the Secretaries of the Military Departments and to any other official designated by the Secretary of Defense. [Ref. 32:p. 1] For the purpose of this thesis, Section 845/804 Authority will be referred to as Section 845 Authority.

In December 1996, Kaminski issued a memorandum designating the Directors of the Defense Agencies as having the authority to use Section 845 Authority. In addition to describing the authority, he lauded its flexibility but warned that it should not be wielded unwisely:

If you delegate authority to use Section 845, I expect it will be to officials whose level of responsibility, business acumen, and judgement enable them to operate in this relatively unstructured environment. If we use this authority wisely, I will request that it be extended or made permanent by the Congress. [Ref. 32:p. 2]

C. COMMERCIAL OPERATIONS AND SUPPORT SAVINGS INITIATIVE

1. A New Approach

In recognition of the untapped technology and rising O&S costs, the Dual-Use Applications Program (DUAP) developed Commercial Operations & Support Savings Initiative (COSSI), a pilot program designed to lower the cost of the acquisition of weapon system upgrades by introducing commercially developed processes or products into fielded weapon systems.

In January 1997 DUAP issued a broad agency announcement (BAA) via the World Wide Web seeking COSSI proposals for the engineering, testing and delivery of

“prototype kits” to the military services...” [Ref. 26] Each kit was to consist of a commercial product or process that had been adapted, qualified tested and readied for insertion. [Ref. 26] The commercial products and processes are expected to lower O&S costs by reducing the cost of parts and maintenance, by reducing the need for specialized equipment, increasing reliability, and by increasing the efficiency of subsystems. [Ref. 29:p. 2.1]

The solicitation for COSSI 1997 also stated that proposals were to be submitted by firms or teams that included at least one for-profit firm. Proposals must also have the written support of a “military customer.” [Ref. 29:p. 2.1]

2. Structure

COSSI consists of two stages as depicted in Figure 2-1 and described below.

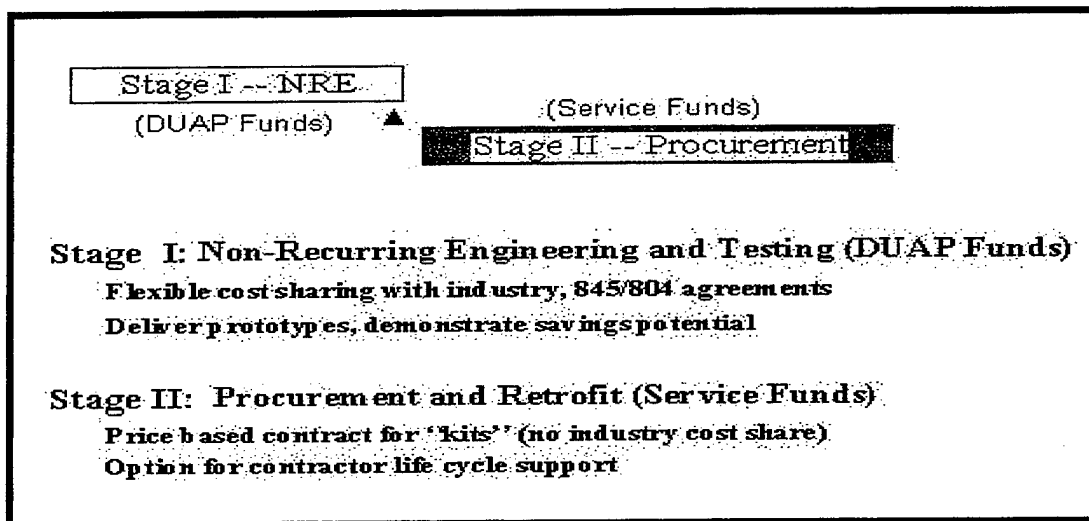


Figure 2-1 Ref. 24:p. 5-2

a. Stage I

Stage I involves the application of Non-Recurring Engineering to create a kit that can be used in a fielded military system. It also involves the testing of the kit to

ensure that it will produce the predicted O&S cost savings while maintaining the current system level performance. [Ref. 29:p. 2.5] Funding for is provided through DUAP.

b. Stage II

If during Stage I, the contractor has successfully demonstrated the applicability of the prototype kit, then Stage II consists of the purchase by the military customer of a reasonable production quantity of the kit. Purchase of the kits is to occur without re-competition, at a fair and reasonable price based on an analysis of the value of the kits to the Service and without requiring participants to provide detailed cost and pricing data. [Ref. 29:p. 2.5.2] Funding for Stage II is to come from the Services. Figure 2-2 is a conceptual model depicting the integration of Stage I and Stage II into a fielded weapon system. [Text blocks have been blackened for improved readability.]

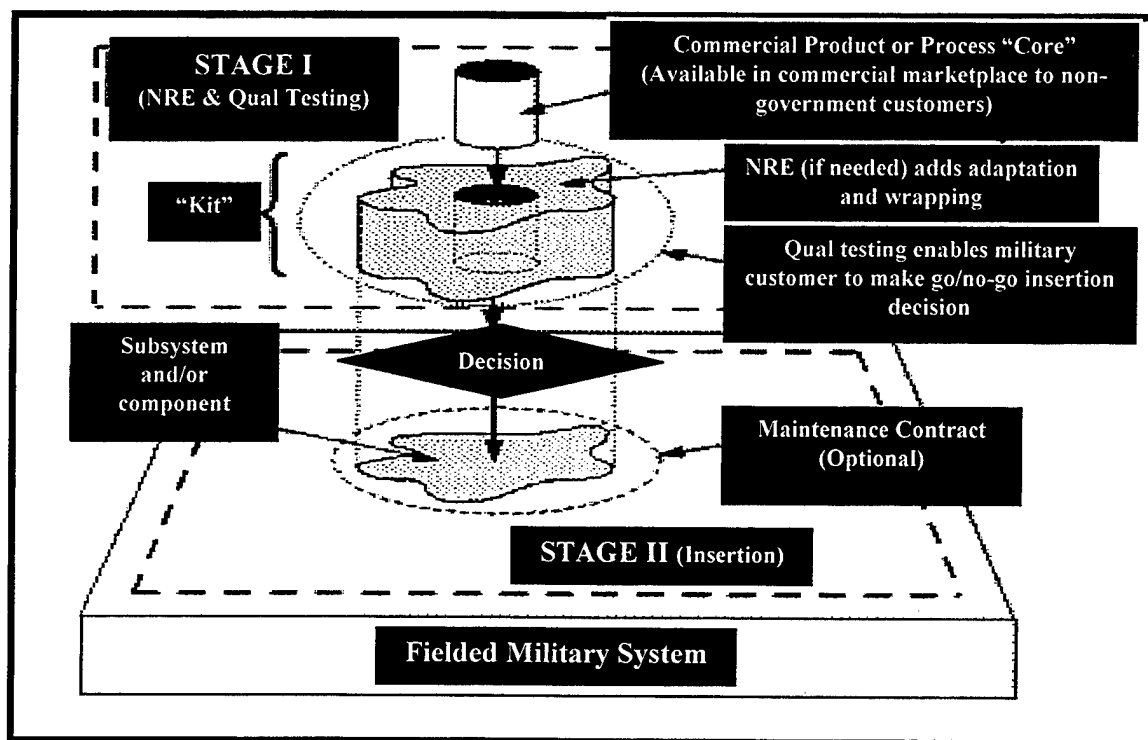


Figure 2-2 Ref. 28:p. 2.5.1

3. Use of Section 845 Agreement

DUAP mandated that Stage I be carried out with an Other Transaction for Prototypes (Section 845 Agreement). The solicitation for COSSI 97 stated:

This type of agreement allows a great deal more flexibility and has far fewer regulatory requirements than a typical federal acquisition (FAR) contract. In particular, this initiative will not generally require Government cost accounting standards or Government cost audits. Furthermore, intellectual property provisions may be negotiated that differ from those usually found in procurement contracts. [Ref. 29:p. 2.8]

Realizing that few individuals had experience with this Authority, DUAP conducted Section 845 training for the Government Agreement Officers and provided a sample agreement to serve as a model upon which to build. (See Appendix B, Sample 845/804 Agreement)

4. Cost Sharing

Although cost sharing is not required under statute, the COSSI solicitation stipulated that contractors were expected to share the costs of Stage I. There was no minimum or maximum level specified, but proposals that include higher levels of non-Federal funding will be viewed "more favorably." [Ref. 29:p. 2.7]

The rationale for cost sharing as described in the solicitation is that it demonstrates confidence by the members of a proposal team that they will successfully reach Stage II. [Ref. 29:p. 2.7] Government reimbursed Independent Research and Development (IR&D) Funds were also authorized for inclusion as part of the cost share. [Ref. 29:p. 2.7]

5. Payable Milestones

DARPA stipulated that funding for Stage I would be based on payable milestones. Payable milestones are significant, observable, technical events that the contractor and the Government agree in advance will be the basis for incremental payments. [Ref. 29:p. 2.8]

6. Intellectual Property Rights

The allocation of rights and grants of licenses in intellectual property developed in Stage I will be negotiable. [Ref. 29:p. 5.0] However, the Government's going-in position with respect to patentable inventions, was that the same rights and licenses apply as if Bayh-Dole¹ were applicable. [Ref. 29:p. 5.0]

The requirement for Stage I technical data (as defined in the FAR) is that a COSSI contractor provide a Tech Data Package containing the form, fit function and interface (F3I) specifications of the kit. As stated in the solicitation:

"We are not interested in obtaining any special Government rights in proprietary technology for the inserted kit or in the underlying commercial product or process." [Ref. 29:p. 5.1]

¹ The provisions of Bayh-Dole, Public Law 96-517, as amended, provide the Government's general policy regarding patents rights in inventions developed with federal assistance. In general, the Government's policy is to allow the contractor to elect to retain title to the subject inventions while providing the Government a nonexclusive, nontransferable, irrevocable paid up license to practice or have practiced for on behalf of the United States any subject invention throughout the world. [Ref. 22:p.7]

D. SCHEDULE, SELECTION CRITERIA AND RESULTS FOR COSSI 97

1. Schedule and Activity

The following is a listing of the COSSI 97 activities and scheduled dates for completion. [Ref. 29:p. 2.8]

<u>Date</u>	<u>Activity</u>
January 15, 1997	Solicitation Published
February 12, 1997	Bidder's Conference
March 18, 1997	Proposals Due
May 2, 1997	Proposals Selected
September 30, 1997	Agreements in Place

2. Selection Criteria

The following is an abbreviated listing of the six selection criteria. [Ref. 29:p. 3.1]

These criteria are not rank ordered.

- **O&S Savings** The extent to which the proposed kit will reduce the O&S costs of the fielded system and the likelihood that these proposed savings will be achieved.
- **Commercial Technology Leverage** Degree to which commercial processes make up the core of the kit and the degree to which the kit will use open commercial standards.

- **Equivalent System Performance** Assurance and plans to demonstrate that the use of the kit will maintain at least equivalent levels system performance after insertion.
- **Technical and Management Approach** Degree to which the project management plan supports the Government's confidence of success in the project and the adequacy of the resources for the proposed project.
- **Military Customer Commitment** Confidence presented by the military customer that this project will achieve significant O&S savings and demonstration that the military customer either has or is actively pursuing funds for acquiring the proposed kits for Stage II.
- **Non-Federal Cost Share** Level of proposed costs offered to bear and the quality of the share of Stage I cost.

3. Results

Eighty-one proposals were submitted for evaluation by the Services and 30 were selected. (See Appendix A, COSSI Participants and Projects) The Government cost share for Stage I is \$97 million with the participants contributing \$91 million. If all Stage I projects proceed to Stage II, the procurement costs for the Government will be \$1.018 billion. The initial estimate of the net present values of the savings to be generated by these projects is expected to exceed \$3.0 billion. [Ref. 24:p. 5-3]

E. CHAPTER SUMMARY

This chapter has presented an overview of Section 845 Authority and of COSSI. This overview was in effect from the Government's perspective, presenting how the DUAP initiative, utilizing Section 845 Authority, is intended to work. The next chapter presents the researcher's methodology and, most importantly, the contractors' perspective on how the Section 845 Authority actually worked.

III. INTERVIEW METHODOLOGY AND RESPONSES

This chapter describes the methodology used by the researcher, the broad categories around which the interviews revolved and the results of the interviews in narrative form.

A. METHODOLOGY

1. Contractor Points Of Contact (POC)

The researcher contacted the Government Agreements Officers for the 30 COSSI agreements and obtained appropriate POCs for each commercial firm. The researcher then conducted phone interviews with representatives knowledgeable about the COSSI agreements, and followed up with email to request additional information, or to request clarification of specific issues.

2. Conduct of the Interview

To encourage greater feedback, the researcher asked the primary research question outright and also directed the interview to general topics relevant to the Agreement.

In the course of the interview, many non-solicited opinions and perspectives were offered. The researcher believes that many of these comments, although outside of the scope of the primary research question, are useful and has included them in the "Response" portion of this chapter. For all interviews, the emphasis of the discussion was on the administrative aspects of the agreement, and not on the technical aspects.

The following is a listing of general topics around which each interview was based.

a. Background

The intent of this discussion was to determine the number of traditional vs. non-traditional companies participating in COSSI 97. For purposes of this thesis, traditional companies are defined as those companies whose business practices are predominately oriented toward conducting business with the Government. Non-traditional companies are those companies whose business practices are not predominately oriented towards the Government. When the business practice orientation was not obvious, the researcher used the interviewee's assessment of the company's orientation.

b. Participation

The researcher wanted to identify how important the use of Section 845 Authority was in the contractors' decision to respond to the solicitation; if the COSSI experience was a positive one; if the contractor would participate in another agreement crafted with Section 845 Authority; and how they found out about the solicitation.

c. Effectiveness

Elements of effectiveness, for the purpose of this thesis, include speed of negotiation, flexibility and level of decision-making. The researcher wanted to determine if the contractor believed that the agreement crafted under Section 845 Authority was more or less effective compared to other Government contracts. The discussion of effectiveness also addressed the impact on relations with sub-contractors, if any, and whether this effort could have been performed with a traditional type of contract.

d. Program Administration

Program Administration, for the purposes of this thesis, is defined as the level of involvement of Government players (oversight) and the number of required reports. The intent of this portion of the interview was to determine if the contractor believed that the administration of the COSSI agreement was different than the administration of a traditional Government contract. An additional topic discussed as part of Program Administration, was the similarity of the Section 845 Agreement to a commercial contract.

e. Milestones

The researcher wanted to identify the level of Government involvement in determination of milestones; the contractors' opinion of payable milestones as a payment method; and the nature of payment problems, if any. For the purpose of this thesis, a payment problem is defined as a payment which is in excess of 90 days after invoices were forwarded to the payment office, or a situation in which further delay of payment puts the firm at financial risk.

f. Intellectual Property (IP) and Data Rights

The intent of this portion of the interview was to identify the level and nature of the contractors' concerns about IP and Data Rights.

g. Cost Sharing

The researcher wanted to determine if the requirement to cost share was of major concern or a burden to the contractors and if this requirement had impacted their relations with the Government.

h. Transition from Stage I to Stage II

Because the transition from an OT to a standard procurement contract has not been done before, the researcher wanted to determine what aspects were of greatest concern to the contractors.

B. INTERVIEW RESPONSES

1. Variability

a. Company Size

The number of employees in each of the firms varied dramatically, from approximately 10 in one firm, to several thousand in another firm. In order to determine an appropriate and logical threshold for categorizing these businesses as either small or large, the researcher referred to the Federal Acquisition Regulation [Ref. 20:19.102] and compared the small business thresholds as identified by Standard Identification Code (SIC). The researcher found that the products being developed under COSSI fell into many different SIC codes and that the number of employees for the small business threshold ranged from 500 to 1500.

Due to the small sample size and the large number of product categories represented, the researcher chose to simplify categorization by selecting one measure for

size determination. For purposes of this thesis, those companies with 500 and fewer employees are considered a small business. Those companies with more than 500 employees are considered to be large businesses. (See Appendix A, COSSI 97 Participants and Projects)

b. Position and Level of Involvement of Points of Contact (POC)

The researcher also found a large variation in the positions that the POCs held within the company. For example, when dealing with the larger firms, the researcher generally interviewed the Director of Contracts or the Contract Administrator responsible for the COSSI agreement. When dealing with the smaller firms, the researcher generally interviewed the President, Chief Executive Officer (CEO) or Vice President (VP) for Marketing. (See Appendix A, COSSI 97 Participants and Projects) In all cases, the POC was very knowledgeable about COSSI but their level of involvement, as determined by their position, varied greatly. For example, some participants were involved in the business decision to respond to the COSSI solicitation; some participated in the agreement negotiations; while others currently administer the agreement. The researcher found this variability to be useful, in that it resulted in a more complete response to the primary research question. But the researcher was unable to ensure that all topics were addressed by each interviewee in the same level of detail.

Because of these variances in the size of the companies, the position and background of the POCs, the researcher has not attempted to statistically analyze the

responses. Where possible, the researcher has quantified the responses. The responses are presented below in a narrative format.

2. Responses

a. Background

The researcher found 19 of the 30 participants were traditional Government contractors and 11 were non-traditional contractors. (See Appendix A, COSSI 97 Participants and Projects)

(1) Traditional Contractors. Of the 19 traditional contractors, 15 were large businesses and four were small businesses.

(2) Non-traditional Contractors. Of the 11 non-traditional contractors, three were large businesses and eight were small businesses.

b. Participation

(1) Importance of Section 845 Agreement. The researcher found that 24 of 30 respondents believed that the use of a Section 845 Agreement was not a factor in their decision to respond to the COSSI solicitation. Five respondents found it to be very important and one respondent was not sure.

(a) Not Important. Nearly all respondents in this category reported that they viewed COSSI as a "business opportunity" and would have responded regardless of the contracting method. Generally this category of respondents viewed the availability of funds as more important than contract type. "Dollars are available, I'm going to go after it!" said one large, traditional contractor. Several of the

contractors who weren't drawn by the Section 845 Authority, said that they had intended to do similar projects or were involved in similar projects, so COSSI was simply a "good fit." Although not specifically attracted by it, several considered Section 845 Authority an added plus and were "interested in seeing how it worked."

(b) Very Important. The respondents in this category, all small, non-traditional contractors, were adamant that the use of the Section 845 was an important, if not the critical factor in their decision to respond to the solicitation. One respondent declared, "This was a Godsend for this company." Another said, "By using an OT, I was able to cut the negotiation time and my legal fees in half. I am a small business, I would have stayed away without it."

Several of the respondents said that they would never have been able to comply with all the FAR requirements in the time allotted, if a traditional contract had been used.

(c) Unsure of Importance. One respondent for a large, non-traditional firm said he was not sure if his firm would have responded had a typical contract been used. "If an OT had not been used, we may not have bid. I'm not sure. But the OT did provide real synergism with our commercial work--a great fit."

(2) Nature of the Experience and Willingness to Participate in Another Agreement. The researcher found that 28 of 30 respondents were quick to say that their overall experience was positive and that with all other factors the same,

would participate in another Section 845 Agreement. Two respondents were more hesitant in their response but said that they would still participate in the future.

(a) A Positive Experience and Would Participate in Another Agreement in the Future. Generally all the respondents in this category were very pleased with the overall initiative and were quick to say so. One respondent, a small, non-traditional contractor stated:

As a taxpayer I feel good about this. I feel this is a better way to do business, we are really able to leverage the commercial base....This type of program needs to be supported and sponsored if the Government is really serious about getting cutting edge technology.

(b) Qualified Responses. Both respondents in this category are small, non-traditional contractors. One respondent classified his firm's experience with COSSI as negative, but still felt that the agreement will work out in the end. Therefore, he said, he would enter into another Section 845 Agreement, if the opportunity presented itself.

The other contractor qualified his company's future participation. "Yes, we would participate in another 845 Agreement. I think that this is a more suitable way of doing business with the Government, *provided* that we all incorporate Lessons Learned from the last round."

(3) Notification of the Solicitation. Just under half of the respondents were unaware of how the company was first notified of the solicitation. Responses from the remainder of the respondents were approximately equally divided

among the following three methods: 1) they were alerted by the military customer; 2) they "stumbled on to it" when a personal acquaintance or business connection mentioned it; or 3) they were actively "snooping" and saw it on DARPA/DUAP's home page.

c. Effectiveness

Overall, the response was nearly unanimous that the agreement crafted with Section 845 Authority was more effective than a typical contract. Specific elements of effectiveness are addressed below.

(1) General Comment. A common theme throughout these discussions was the influence of personality on the effectiveness of the Agreement. Several contractors commented that the improved efficiency of the Agreements was due to the personal effort of a few players, not necessarily as a result of the new contracting vehicle itself. One large, traditional contractor summarized these feelings when he stated:

In my experience, Government contracting is a people business in which the personalities and individual characteristics of the people involved in the transaction will determine the level of trust and communication. The Other Transaction may set the stage, but the performance of the actors will determine the outcome.

(2) Ease of Negotiations. The response was nearly unanimous that negotiations were much faster than with a traditional contracting method. Two contractors stated that the negotiation process was slower due to inexperience of the Government representatives.

(a) Improved Speed & Readability. Many respondents in this category commented that the "negotiations took about half the time of normal

negotiations." Several contractors commented on the improved readability of the Request for Proposal and of the final agreement. "This was one of the easiest that I ever worked," was one response. A different contractor commented on the effects of the improved readability:

This agreement is readable. You are able to take this to the business leader, let them read it and then make a decision. Most of the time you need an army of lawyers to interpret the contracts with the Government and this really zaps the energy of the company.

(b) Inexperience. But the increased speed and improved ease of negotiations does not mean that the negotiations were effortless, they were not. Many contractors spoke in detail about the "pain" of negotiating an agreement when neither party has done it before. One contractor said that, "DARPA is good at this, but the [Service] personnel are not trained and are not comfortable."

(c) Decreased Speed. For these same reasons, at least two contractors felt that the negotiation process was actually slower. One, a large, traditional contractor said, "The learning curve was so steep. The contracting shop was not familiar [with the Section 845 Authority] and was very cautious." The other, a small, non-traditional contractor said, "No [it is not faster]. The Government side is unsure of this new form and has reverted back to doing things the way it knows—the old way! The safe way!"

(3) Flexibility. By far the majority of the contractors reported increased flexibility. Some were very surprised that the Government was now able to do business this way. Others commented that the increased speed and flexibility were driven

more by personality, then by the contracting method. A minority of the contractors saw no change or decreased flexibility.

(a) Increased. The most common example given of the Government's flexibility was the restructuring of milestones. "Yes [more flexible], much less restrictive. We have had two modifications. We simply sat down and agreed," said a small traditional contractor. One large, non-traditional contractor who was also very pleased with the flexibility, commented on how early the modifications began. "In fact," the contractor stated, "The day of the kick off celebration we had a modification! Not a problem!" A small, non-traditional contractor described how the Agreement's flexibility allowed them to keep the program on schedule.

A good example of flexibility is when we saw that we could prevent a three-month delay by purchasing specialized test equipment earlier in the program, before the first milestone. We had to modify the Agreement to acquire the equipment accelerate the payment. It saved time and prevented a three-month delay.

(b) No Change or Decreased. The researcher found that a minority of the contractors did not see any increased flexibility. Again, problems were attributes to the personalities involved, and not to the contract method. One small, non-traditional contractor stated:

The Government is treating this contract just like a normal one. It is a huge mess. They are asking for detailed costs, line item by line item. This is directly contrary to the purpose of increasing flexibility.

(4) Level of Decision Making. There was no clear consensus that the level of decision making had changed one way or the other. Approximately equal numbers of contractors said it was lower, higher or about the same.

(a) Lower. A few respondents felt like the decision making level was lower; that the Government representatives were more "empowered" than normal. "Because it is more informal, decisions are made face to face." Others felt like the fact that they were dealing with fewer people made them feel like the decision making level was lower.

(b) Higher or No Change. Some respondents felt that the newness of this contracting vehicle prevented too much autonomy. One small, traditional contractor commented, "Our counterparts are very cautious, the world is watching." Another small, traditional contractor saw no change. "Decision makers all want to seek advice so the level of decision making has not changed. They do not want to make a decision in a vacuum."

One contractor was frustrated with the inability of the Government Representatives to make a decision early in the program, that he thought was in line with the original Agreement. After several months, the contractor did get what he had initially pushed for. As a result of this delay, he did not think the decision making level had shifted. He stated, "If the decisions could have been made at a lower level then I would have gotten what I wanted at the start of the program."

(5) Relationships with Sub-contractors. The researcher found that the respondents generally did not believe that the use of a Section 845 Agreement impacted their sub-contractors. This is primarily due to fact that a majority of the firms did not subcontract out major portions of their effort, most of the work is being performed "in house." The few that did have significant sub-contractor generally saw no change. In two instances, a significant change was noted.

(a) No change. One large, traditional contractor was firm, "No change in relations to subs. We are the prime, you are the sub!". One small, non-traditional contractor stated, "Relationship with the subs is out of the Government control. Subs all see this a commercial contract, no difference [in our relations]. One respondent did not categorize it as a significant change but said because they were not required to provide detailed cost or pricing data, they were not requiring it of the subs.

(b) Significant Change. The two respondents in this category did see a significant change. One respondent, a small, non-traditional contractor flowed down the entire 845 to his subs. The other respondent, a large, traditional contractor formed a consortium with another large, traditional contractor for the COSSI Agreement. These two firms typically do business together but in the standard way. They found that there was a significant change in their relationship. The researcher spoke to only one of the two firms. The contractor stated:

It is a true collaborative effort....Very different than we've traditionally done business....Almost simultaneous with the negotiation we wrote the articles of collaboration that defined our relationship. This ensured that all parties are tied in together with respect to how to operate. This ensured everyone had a warm and fuzzy!

(6) Feasibility of Using a Traditional Method of Contracting.

All of the traditional contractors said that they could have used a traditional contracting method but that it would have taken longer to negotiate, required more documentation and therefore cost more. The only contractors, who could not have used a traditional contracting method, were small businesses that would not have responded if a Section 845 Agreement had not been used.

d. Program Administration

(1) Level of Government Involvement. The researcher found that the majority of the respondents noted a significant reduction with regard to the level of Government involvement in contractual matters. "Once the contract was negotiated, that was it."

But on the technical side, the majority of the respondents stated that the level of Government involvement had actually increased. A large, traditional contractor stated, "The Government is much more involved, but less formally. We speak more often." A different large, traditional contractor, also reported, "The Government is very involved but less formally and in more depth." The majority of the contractors said that it was to their advantage to ensure that the Government was as informed as possible, "After all, we want them to buy it [the modification kit]."

(2) Required Reports. The researcher found that in general, contractors submitted a variation of monthly, quarterly, and annual status reports in addition to milestone reports. Overall, there was little disagreement that the number of required reports and data requirements were substantially less. A large, traditional contractor stated: "The old way we'd have 43 items on the Contract Data Requirement List (CDRL), now we have none! We do monthly reports, but no long data items." One contractor stated that they have worked with the Government to minimize the reports and have agreed those that are logically required, but no more.

However, since some of the reporting requirements are tied to the number of milestones, those firms that had more milestones did not experience a significant reduction compared to others with fewer milestones. One contractor with more milestones reported that, "It hasn't been reduced as much as we had hoped." Another voiced a common dilemma: "We had to try to balance the administrative work required for milestone payments with our cash flow."

Although the reporting requirements were less than normally required with a traditional contract, one large, traditional contractor was very concerned about the Service's expansion of the reporting requirements:

The customer is very driven by the FAR and has actually expanded the reporting requirements. They are trying to run this like a bureaucracy in order to protect themselves. They really don't understand. If the people running it understood the technology then they would back off.

(3) Similarity with Commercial Contracts. Less than half of the respondents had participated in purely commercial contracts. Most of these

respondents found some similarities and some differences with commercial contracts. Because there is no standard commercial contract, it is impossible to compare them across the board. Two contractors were particularly adamant in their opinions.

One, a small, non-traditional business said that this Agreement was very similar to a commercial contract, "There is not a lot of overhead, like a commercial contract." This same respondent liked the format and wording of the COSSI Agreement so much that he has used parts of it in his more recent contracts with other commercial firms.

The other adamant respondent, the same small, non-traditional contractor which was quoted earlier as saying their COSSI Agreement was "huge mess," said there were no similarities between this Agreement and a commercial contract. He emphatically stated, "It is a joke to call this [agreement] commercial like!"

(4) Relationship with the Government. Approximately half of the respondents reported that they had better relations with the Government. A couple of these respondents noted that although their relationship had improved, real change requires time and experience. The remainder reported that there was no change to their existing relationship with the Government. Only one respondent reported bad relations with the Government.

(a) Better Relations. The respondents in this category reported that their relationship with the Government was less formal; it was less adversarial and therefore significantly better. "It is an easier relationship," reported one

large, traditional contractor. Several of these same respondents attributed the improved relations with the Government to the fact that the customer was more relaxed because it was not using its own money. One small, non-traditional contractor stated: "They have little to lose financially—it is not their cash on the line."

Several contractors felt like there was higher level of trust because more responsibility was placed on the contractor. This feeling of increased responsibility was especially high for those companies who had approached the military customer with an idea for COSSI. One of these, a large, traditional contractor stated:

Our relationship has changed significantly. I attribute this partially to the fact that the dollars came from somewhere else and because it was our idea to do this. Because it was our idea, the [Service] has let us take the technical lead. Letting us do this our way. Of course they are still very involved but we are more autonomous. We accomplish more with fewer resources!

Most contractors stated that the agreement was mutually supportive, in that both parties had vested interests in the program's success. One large, traditional contractor stated, "We work well together. Very cohesively...We involve the Government because it impacts how we proceed. This is R&D, the outcome dramatically impacts the next phase."

(b) Real Change Requires Time and Experience. A couple of contractors noted that they have seen improvements in their relationship with the Government but that real changes take time and require more experience. One large, traditional contractor stated:

This is new to both sides. There is some confusion about the operation of the agreement....I am constantly having to remind my people not to call it a contract. This is an agreement! An agreement is less formal, we do not have to gird our loins when preparing for a conversation [with the Government]. If we want to make a change to make it [the agreement] better, then simply address the issue. There are cultural practices that have developed on both sides of the fence that still separate us.

(c) No Change or Bad Relations. The respondents in this category stated that their relations with the Government were the same. "No change in our relations, [we've] always had good [relations]," stated a large, traditional contractor. One small, non-traditional contractor [18] did not have a good relationship with the Government; "They have not followed the intent of the solicitation."

e. Milestones

(1) Level of Government Involvement. The researcher found that 23 of 29 respondents felt that the Government was very involved in the determination of milestones. The remaining six respondents, felt that the Government was not involved in milestone determination.

(a) Very Involved. The most common description of milestone determination was that the contractor first prepared them, and then the Government reviewed and revised them. In most cases the revisions were acceptable and the respondents felt like there was a good "give and take." One small, non-traditional contractor voiced a common theme, "Milestones were developed jointly. We went back and forth. Each side prevented the other side from reinventing the wheel." One large,

traditional contractor stated that, "The PM came down with his technical reps and we sat down and refined the initial milestones."

(b) Not Involved. A minority of the respondents stated that the Government was not involved. According to one small, non-traditional contractor: "The Government did not really help. We developed the milestones and sent them to them. They accepted."

(c) Additional Comments. Several contractors stressed the fact that a "prudent" number of milestones need to be identified. That is, reporting requirements and payment requirements have to be logical. One large, traditional contractor, expressed concern that he failed to do this and that after five months he has yet to reach the first milestone, and has not been paid. "At least under a normal contract you get progress payments."

At least two contractors stated that they had to significantly restructure the milestones after the project was underway. One, a large, traditional contractor stated, "They were put together in a big rush, a real time crunch. Should have put more thought into it." The other, a large non-traditional contractor said, "14 days to plan everything out is tough. We did not think of everything." Both contractors used the Government's willingness to restructure the milestones as an example of improved flexibility.

One large, traditional contractor, whose project is mainly software related, stated that it was very difficult to divide the product into milestones. "It has been a major effort to put together intermediate milestones."

(2) Opinion of Payable Milestones. The researcher found that the majority of the contractors felt like payable milestones were a good payment method. Although, one small, non-traditional contractor commented that the structure of the payment terms was a barrier to innovation.

(a) Positive. One respondent in this category, a large, traditional contractor stated: "[Milestones are] much easier than being wrapped up in cost accounting arrangements. [And are] also a fair way to do it." A different large, traditional contractor expressed a common opinion, "[We were] able to shed excess overhead, lowering the cost. It is much cheaper."

(b) Payment Terms Create a Barrier to Innovation. One small, non-traditional contractor who had milestones scheduled every three months said the system works "OK." But he saw the fact that payment is only for work completely finished as a barrier to innovation:

Down side is that I can't get paid for partial work completed. If I want to speed up the process and complete 70% [of the milestone] in less than 3 months, I have to wait until the other 30% are completed before receiving pay. There is big difference between this and a commercial contract.

The only other area related to milestones that was identified as negative was payment. These concerns are presented below.

(3) Payment Issues. The researcher found that 13 of 30 respondents did not know if their firm had submitted an invoice or if there was a payment problem. Of the remaining contractors, eight had payment problems. Of those that had payment problems, three were large, traditional contractors and five were small, non-traditional contractors.

(a) Cause and Extent of Problems. Nearly all of the firms with pay problems attributed the delays to the Government's lack of familiarity with the payment procedures for a Section 845 Agreement. One small, non-traditional contractor said, "We had a snag on the first invoice. Not all the players were on board with the new procedures. Not submitting a DD250 is very different." Another small, non-traditional contractor stated that he nearly went broke waiting on payment. He also attributed the delays to the inexperience of the Service and paying personnel. A different, small, non-traditional contractor was more adamant; "Everything is disorganized. Nobody understands this type of contract. It is all nice language but the road to hell is paved with good intentions."

Some respondents attributed the payment delays to inexperience on both sides, Government and contractor. For example, a small, non-traditional contractor said, "We had our invoice in the wrong format and misunderstood at first.... We have resubmitted and everything is OK now." One small, non-traditional contractor attributed lengthy delays for the first two milestone payments to the fact that he was not receiving payment electronically.

f. Intellectual Property (IP) and Data Rights

The researcher found that just over half of the respondents considered IP and Data Rights to be a major concern. This is not to say that IP and Data Rights were not an important issue for all participants; they are, especially in today's competitive market. The explanation for this apparent contradiction is that the participant's level of concern was driven by how they viewed their ability or the Government's ability to protect their rights.

(1) Major Concern. The respondents in this category were approximately equally divided among those who were concerned about protecting existing rights and those who were concerned about protecting future rights.

(a) Protection of Existing Rights. One large, traditional contractor stated a perspective shared by nearly all respondents in this category, "It is OK for the Government to have rights but not on what we had already invested. Our competitive edge is dependent upon not letting this type of information out to others." As one small, non-traditional contractor stated, "We had the patent long before this agreement and we are not willing to sacrifice it."

(b) Protection of Future Rights. The contractors in this category stated that the issue for them was not over IP and Data Rights developed prior to the agreement. "We had a clear position. The technology we are using is licensed to [name of the firm], so we would not disclose it," said one large, non-traditional contractor. The main issue for these contractors was the delineation of rights

for the items developed jointly under the Agreement. Rather than risk the Government purposefully or inadvertently passing out their property, these respondents sought to maintain control of the IP and Data Rights by very carefully delineating where the Commercial and Government portions of the cost share would be spent. According to a large, traditional contractor, "He who pays for it gets to keep it the rights." One small, traditional contractor stated:

We want to retain rights for all proprietary designs. We don't want Government R&D funds to be used there because we don't want ownership to go to the Government. We asked [the System Command] to buy hardware and manuals.

Another large, traditional contractor who felt that the issue of IP and Data Rights was "huge," stated:

We had to ensure in the Statement of Work (SOW) to spell out specifically which tasks we would do with our dollars and which tasks are to be done with DARPA dollars. We have to protect what we do with our dollars and apply DARPA dollars in other areas that weren't as critical.

For most of the respondents in this category, this delineation process was tough. One large, traditional contractor stated, "...Because this was a program that we were going to do anyway, with our own funds, we had to ensure that we separated out what parts the Government had rights to--This was a big headache!"

But one large, traditional contractor did not feel this way. This firm categorized the delineation process under this Agreement as easier than under a traditional contract:

We typically spend lots of time kicking around who owns what. There is a real ownership problem. But under an 845, this is clear. Who is doing what is easy to determine and, therefore, so is who owns what rights.

(c) Traditional Language. One respondent, a large, traditional contractor, who categorized IP and Data Rights as a concern, stated: "We wound up with language straight out of the DFARS. There was no [direct] reference [specific] to DFARS clauses but lawyers on both sides were more familiar with DFARS [wording] so we extracted that language."

(2) Little Concern. The majority of the respondents in this category were not concerned because they had previously developed the item and owned all IP and Data rights. "We had proprietary data going in and we protected that. Not really an issue," said a small, non-traditional contractor. "The Government recognized up front that any proposal submitted would contain information that typically is not public," said another large, non-traditional contractor.

Three respondents in this category stated that the Government terms were acceptable. One, a large, traditional contractor stated, "The IP provisions were fair and reasonable. We are used to doing business in this environment. Very standard."

One small, non-traditional contractor felt like the high user demand for his item kept the issue of IP and Data Rights from becoming a major issue, "Not really a contentious issue. The user wants our product so bad that that they are not hard up!"

g. Cost Sharing

The researcher found that the cost share percentage of funds provided by the Government ranged from 94% to 32%. The researcher also found that 10 of the contractors either did not know if cost sharing was a concern or did not answer the question. Of the remaining 20 contractors, 12 did not have major concerns with cost sharing and eight did.

(1) No Major Concerns. Nearly all respondents in this category did not categorize cost sharing as a major concern, but agreed that any time you contribute discretionary dollars it is an issue that has to be well thought out. "Not really an issue, it was a small amount but at the same time anytime you spend profit dollars it is an issue," said one large, traditional contractor. Many of the respondents stated that they were planning on conducting this type of effort anyway, so contributing was not a major concern. In fact, they viewed the Government's portion of the cost share as a reimbursement. Many also saw contributing as a long-term investment. One small, non-traditional contractor stated, "We do not expect to make any money now. Payback is in the production."

(2) Major Concerns. The researcher found that the majority of firms that categorized cost sharing as a major concern, did so because it involved the expenditure of "discretionary funds." "A Corporation is in business to make money, not give it away," said the respondent from a small, traditional contractor.

Several firms, all small, non-traditional contractors, intended their high percentage of cost sharing to be a sign of their interest. One respondent stated, "We wanted to ensure that we got the contract, therefore our cost share is so high. This is proof of our desire!" Two firms, both small, non-traditional contractors stated that cost sharing was a burden and that it was difficult to get the money.

At least one firm, a large, traditional contractor, was concerned when they submitted their proposals that they had not contributed a large enough portion of the cost share to be competitive. They were surprised when they were selected. They were pleased that the share ratio was not mandated but rather judged in relation to the expected cost savings.

(3) Positive Effects on Relationship with the Government. The majority of respondents stated that the requirement to cost share had a very positive effect on their relationship with the Government. No one responded that the requirement to cost share had negatively impacted their relationship with the Government. Several respondents saw cost sharing as the critical link in their relationship with the Government. A large, non-traditional contractor stated: "For us cost sharing is a validating point. After all, how confident could or should the Government be if they were putting up 100%?"

Cost sharing was also viewed by nearly all respondents as a means to apply leverage to ensure that they maintained control of IP and Data Rights.

According to one large, traditional contractor, "He who pays for it gets to keep the rights!" Several respondents stated that cost sharing had given them a voice in the project. One small, non-traditional contractor said, "Yes, this [cost sharing] is a big change. They can't tell us how to do it! We are using a teaming approach, forcing both sides to work together!" Another small, non-traditional contractor stated:

If I don't like the way it is going, I can fix it. I have the authority to say something to the Government if I don't like something. And I'll be damned if I'll let anything foul this project up. Meet my needs or I'll get out of it. I'm paying half the costs!

h. Transition

The researcher found that six of the contractors either did not know of concerns related to the transition or failed to answer the question. Of the remaining 24 contractors, 17 did not have major concerns about the transition and seven did have major concerns.

(1) No Major Concerns. A majority of the respondents in this category were not concerned because they believed that the obligation to transition to Stage II was shared with the Government. The remainder felt that the obligation was on them to ensure that the transition occurred and that this was an acceptable risk. Although the respondents in this category did not have "major" concerns about the transition, nearly all expressed some concern about the possibility of Stage II not being funded. An additional minor concern, voiced by several of the respondents, was the impossibility of recouping their investment if Stage II production quantities declined

(a) Shared Obligation. The respondents in this category stated that they believed that if they met their obligation through achieving the program's objectives, then the Government would meet their obligation. "We are operating under the assumption that if we meet all the wickets as laid out, that we will get the production contract," said one large, traditional contractor. This same contractor voiced a common theme of mitigating any transition risk by working with the Government. "It is in our inherent interest to work with the Government because they are trying to secure funding for Stage II and a production guarantee."

(b) The Contractor's Obligation. The respondents in this category stated that the burden of achieving the transition was on them. "The onus is on us to get through to Stage II. This is no different than the commercial world. There are no real promises," said one small, non-traditional contractor. Another small, non-traditional contractor stated:

I'm in this with my eyes open, in commercial supply you take risks. I'm hoping that at the end of Stage I, we demo the finished product and the [Service] falls in love with it. But if the [Service] does not buy it, then commercial customers will still want it.

(2) Major Concerns. The researcher found that four of the seven respondents in this category were concerned about re-competition. The remainder saw no benefit if the transition was not accomplished.

(a) Re-competition. These respondents were very concerned about the possibility of the Government not being able to uphold its pledge of

transitioning to Stage II without re-competing the projects. One large, traditional contractor stated:

Regulations will force the Government to compete [Stage II] or my competitors will put up a stink and force competition. This will cause delay and result in lost time and lost resources. I believe that the Government does not want to compete but it may have to. But if I have done all that was required, at the required price, then I should get Stage II. Now certainly I understand the funding issue, there may be no funds to go to Stage II. But if there is money and I have met all the gates, and do not get Stage II, then I will put in a claim. I MUST try to protect my investment!

(b) No Benefit if not Transition. The respondents in this category were very concerned that if they did not transition to Stage II that there was little benefit in the program. One small, non-traditional business was adamant:

We have nothing to gain unless we are able to enter Stage II. That is our carrot. Some of the larger companies will be able to turn around and go directly commercial with the product at the end of Stage I. They will not be hurt if Stage II falls through. We are a small business and can not do this. We need some time to really get established. Stage II serves as this time!!

A large, traditional contractor was also concerned that a payoff in the future existed. He stated: "We have put dollars in. At the top of the company they are anxious and want to make sure that there is something out there after Stage I."

(3) General Comment. Several respondents spoke of the Government's "non-compete" clause when transitioning from Stage I to Stage II as a real incentive. One large, traditional contractor voiced a common theme when he said, "This aspect certainly made the agreement more attractive! Puts a positive spin on it all

[referring to having to provide cost share dollars.] Good carrot if we do what we are supposed to do."

C. CHAPTER SUMMARY

This chapter has presented the researcher's methodology and a general categorization of responses around interview topics. The extreme variation in company size, position and level of involvement of the POCs makes it impossible to statistically analyze these responses, but it does not diminish the value of these data. These subjective responses provide a variety of views that reflect a broad range of experiences. These responses reveal the diversity of personalities and business situations that can best be handled by an innovative tool like the Section 845 Authority. In the following chapter, the researcher will analyze these results and identify the specific benefits and limitations of each topic area.

IV. ANALYSIS

This chapter provides an analysis of the results presented in Chapter III and focuses on the specific benefits and limitations of each interview topic area. Where appropriate, the researcher has highlighted the implications of these findings for a Government organization preparing to use Section 845 Authority.

The Reader will find that many of the benefits are linked by common themes, such as improved relationships and improved flexibility, and that several of the limitations are linked by inexperience with Section 845 Agreements. The Reader will also find that the use of Section 845 Authority requires the Government representatives to have an in-depth knowledge of the program's objectives and requirements.

A. BACKGROUND

1. Benefits

- *Broader Vendor Base*

Eleven of the 30 contractors that participated in COSSI 97 were contractors whose business processes are not oriented towards doing business with the Government. This achieves one of the intended goals of Other Transactions (OT), that is to attract non-traditional contractors. An expanded vendor base provides DoD with access to new technology that is critical to maintaining its technological advantage. It also provides the Government with a means to leverage off the larger pool of the privately funded R&D efforts.

One small, non-traditional contractor strongly concurred that the use of Section 845 was attractive to non-traditional contractors and that a broader vendor base is beneficial. "This is a much more efficient way to do business. Small and medium sized businesses are full of creative juices that can be attracted by streamlining the system." For the Government, access to these "creative juices" represents access to a broader range of innovative and technologically advanced solutions for numerous problems, including the reduction of O&S costs. It also provides DoD with the agility required to counter unforeseen, technological threats.

2. Limitations

- ***More of the "Same Old Same Old"***

Nineteen of 30 participants in COSSI 97 are traditional contractors who are familiar with doing business with the Government. Although not confirmed, this may fuel a perception among Congressional skeptics that this is simply a way around the rules. The depth of this perception will become especially critical as the Congressional vote on extending Section 845 Authority draws near.

- ***Expanded Vendor Base Not Yet Permanent***

Although the number of non-traditional contractors participating in COSSI 97 is encouraging, there is no guarantee that the expanded vendor base is permanent. One of the primary factors influencing this is the fact that none of the COSSI 97 projects have overcome the hurdle of transitioning to Stage II. As will be discussed in Section H of this chapter, the success of this transition and the ability of the Government to abide by its

solicitation promises, will in large part determine the level of continued interest in the use of Section 845 Agreements. Agencies planning to use Section 845 Authority must carefully consider the implications of transitioning from "outside the FAR" to "inside the FAR" and obtain appropriate waivers and exemptions, before issuing the solicitation. Through prior planning, the Agency can gain the trust and confidence of the non-traditional contractor.

A second factor influencing the uncertain permanency of the expanded vendor base is the fact that the authority to use Section 845 is only temporary. Congress will vote in 1999 to either extend or abolish its use. If Congress extends the use of the Authority, it will also vote on whether to expand the Authority to include production. Organizations and individuals that feel strongly about the use of Section 845 Authority should take action to ensure that their Congressional representatives are aware of their views, prior to the Congressional vote.

B. PARTICIPATION

1. Benefits

- ***May Lead to a Continued Relationship with the Government***

Nearly all contractors have had a positive experience with COSSI 97 and would consider entering into another Agreement crafted with Section 845 Authority. This is especially significant for the non-traditional contractors, who are working with the Government for the first time, and who would now favorably consider a "relationship" with the Government.

With an improved reputation among these contractors, the Government has a unique opportunity to foster strong relationships and to inform the non-traditional contractors about ongoing DoD acquisition reform efforts. The Government can also encourage these "new" contractors to participate in other, more traditional endeavors. This will help to ensure that long-term relationships are established and the vendor base is expanded.

In effect, the Government can use Section 845 Agreements as a "hook" to pull in non-traditional contractors and then improve their perception of doing business with the Government. As discussed in Chapter III, some of the non-traditional contractors expressed surprise that the Government was able to conduct business this way. These small, non-traditional contractors never considered Government business because they perceived the Government to be an adversarial customer erecting barriers to their participation. One small, non-traditional contractor stated, "The old system was prohibitive; it scared away the little guy." But these contractors are now inquisitive about what other, "commercial like" initiatives the Government is undertaking. At least one small, non-traditional contractor is already pursuing a second project with their COSSI customer.

This discussion of establishing long-term relationships, may be helpful in gaining Congressional support during the debates over extending the use of Section 845 Authority to include production.

2. Limitations

- *Contract Type Secondary to Business Opportunity*

Twenty-four of 30 respondents believed that the use of a Section 845 Agreement was not a factor in their decision to respond to the COSSI solicitation. Nearly all respondents in this category reported that they viewed COSSI as a "business opportunity" that was in line with their firm's strategic goals or core competencies. They saw a "fit" between what the Government wanted and what they wanted. In some cases they intended to do the project anyway and saw this as means of getting reimbursed by the Government for their effort. They were not interested in the contracting vehicle per se, but were interested in the longer-term effects on their position in the market.

The Government, therefore, has to carefully construct innovative initiatives that do not rely solely on the use of a new contracting method to attract participants. It must consider all factors of the business decision-making cycle including market trends, timing of the solicitation, and business structure of the target contractors. This type of in-depth analysis may lead the Government to determine that in some cases it is better to give the contractor the option of using a traditional method of contracting, in lieu of a non-traditional method.

An example of where this may have been the case involves the large, traditional contractor who considered their COSSI project to be an engineering change proposal (ECP) to an item in production. This contractor may have been better suited to perform the task using a traditional, more familiar contracting method. After all, the

Government-approved systems were already in place. It is not known what the difference in cost or schedule would have been if a traditional contracting method had been used; however, in this particular case, the contractor could have avoided administrative problems that arose as a result of inexperience with the Section 845 Agreement.

Several of the small, non-traditional contractors stated that the use of a Section 845 Agreement was a critical factor in their decision to respond to the solicitation. They contended that if a traditional method had been used, they could not have obtained the required, Government-approved systems in the time allocated. It is not known if additional time would have made a real difference. However, in some cases, it may be advantageous to the Government to give a non-traditional contractor additional time to respond to the solicitation. This additional time may be used by the contractor to assess the compliance of their current systems, or by the Government to inform the contractor as to what compliance with the traditional regulations would entail.

C. EFFECTIVENESS

1. Benefits

- ***More Effective***

Nearly all contractors believed the use of a Section 845 Agreement was more effective than a traditional contract because negotiations were quicker and flexibility was increased.

The increased flexibility experienced by the majority of the participants was in stark contrast to what the traditional contractors had experienced in previous

contracts with the Government. One small, traditional contractor stated, "We have been able to operate in the essence and spirit of the agreement as opposed to simply complying with lists of FAR clauses." This increased effectiveness leads to less wasted effort and more "bang" for each Government dollar invested. Several contractors stated that in a R&D effort, where the outcome and path to the goal are not known, this type of flexibility is essential. As one small traditional contractor said, "This is R&D, the outcome [of Stage I] dramatically impacts the next phase [Stage II]."

From a larger perspective, it is also possible to say that the use of Section 845 Authority was more effective because some of the small, non-traditional contractors would not have participated under a traditional procurement method.

2. Limitations

- ***Dependence on Innovative Agreements Officers***

Several of the respondents attributed effectiveness issues, both positive and negative, to the people involved and not solely to the use of an innovative contracting tool. One large, traditional contractor expressed a common opinion that, "The OT may set the stage but the performance of the actors will determine the outcome."

The intent of OTs was to improve procurement efficiency by removing the dependence upon regulations and allow Government and contractor representatives to reach an agreement that makes common sense and satisfies both parties. Therefore, the responsibility to reach an agreement that balances the Government's risk with perceived value, is on the shoulders of the Agreements Officers. Operating outside of the safety of

the acquisition regulations is directly contrary to the Government culture of avoiding risk. It is not easy to find individuals who feel secure operating in this "regulation-free" realm and to find Government organizations, outside of DARPA, that readily support this level of innovation.

An Agency preparing to use a Section 845 Agreement must realize from the start that the success of program is dependent upon the people it selects to represent it. It must choose its representatives carefully, selecting individuals who are trained and naturally innovative. Because innovation is the most difficult characteristic to find, and can not necessarily be improved with additional resources, this should be the basis for representative selection.

An Agency should look for individuals who have shown innovation in using the traditional system and "think outside the box." Ideally, it would find individuals who have commercial contracting experience. A large, traditional contractor was in a unique position to evaluate the value that an Agreements Officer with commercial experience brings to the process. This particular contractor had two Agreements with two different Agreement Officers, one with commercial experience, the other without. The contractor was adamant that the Agreements Officer who had commercial experience was much more flexible. "She was able to think outside of the normal bounds and move the Agreement to where it needed to be. The Agreement went much smoother."

An Agency considering the use of a Section 845 Agreement must provide broad training for its representatives so that they understand the contracting tool and can apply it effectively. Training should not be limited to the statutory aspects of the Authority but should include an in-depth explanation of the purpose and intent of using a Section 845 Agreement. A small, non-traditional contractor underscored the importance of this training, stating, "It is essential that more contract/legal officials are trained to think and act different from traditional FAR contracts." One small, non-traditional contractor complained that the intent of the Agreement was not understood and therefore it was handled like a traditional contract. A large, traditional contractor was also concerned because he also felt that the intent of the Agreement was violated when additional reporting requirements were expanded.

The customer is very driven by the FAR and has actually expanded the reporting requirements. They are trying to run this like a bureaucracy in order to protect themselves. They really don't understand. If the people running it understood the technology then they would back off.

Because the effectiveness of the Section 845 Agreement appears to be influenced by the capabilities and training of the individuals involved, in some instances, if the "right people" are not available, then the use of a traditional contracting method may make more sense.

All respondents who stated that the use of Section 845 Agreement was not an important element in their decision to respond to the solicitation, also said that they could have used a different, more traditional method of contracting. The majority of the

respondents who felt this way agreed that the effort probably would have taken longer, required more paper work and therefore, cost more.

A Cost/Benefit analysis of a Section 845 Agreement vs a traditional contract was not part of this research, but an Agency considering the use of a Section 845 Agreement should consider conducting such an analysis. The depth of the analysis should be tailored to the situation and take into account the experience of the contractor, the cost share ratio (if any), the complexity of the item and the intended use of the item. Although it may be difficult to accurately determine the real costs and benefits of a Section 845 Agreement, an Agency considering its use must consider the tradeoffs, prior to a final decision on the contracting method.

- *No Change to the Level of Decision Making*

There was no clear consensus among the respondents that the level of decision-making had changed. Most cited the lack of experience as a barrier that prevented the Government representatives from being or feeling empowered. One large, traditional contractor stated, "No change in the level of decision-making. For the most part, people are very cautious." The lack of experience and unfamiliarity with the agreement is a barrier that should come down with continued use. As these agreements become common, more people will be accustomed to using them and will be encouraged by precedence. One large, non-traditional stated:

Because this is a new method of contracting there is little precedence relating to contract issues. Because of this, I sense timidity on the part of Contracting Officers when it comes to resolving contractual matters. Precedence would start to delineate what can and can not be done.

An Agency employing a Section 845 Agreement can foster decision-making at the lowest levels by rewarding quick, sound decisions. The Agency must create a climate that supports innovation and ensure that the lessons learned from their previous agreements are properly disseminated.

D. PROGRAM ADMINISTRATION

1. Benefits

- *Improved Informal Relationships between Contractor and Government Representatives*

Approximately half of the respondents reported that because the relationship with the Government was less formal; it was less adversarial and therefore, their relationship was significantly better. "We work well together, very cohesively," said a small, traditional contractor. The respondents also indicated that this improved, informal relationship translated into increased communication which would likely result in a product that better satisfies both their needs. Additionally, increased, informal communications provides for early notification of problem areas, generally resulting in less expensive, more quickly achieved solutions. And because each side is better informed, expensive layers of bureaucracy, including formal reports, can be eliminated. Increased, informal communications is therefore more cost effective and contributes significantly to the perception that a Section 845 Agreement permits the participants to do more with fewer resources.

2. Limitations

- ***May Be More Manpower Intensive***

As stated above, increased, informal involvement certainly is beneficial in that it improves communications. However, Agencies using or preparing to use a Section 845 Agreement must understand and assess related workload implications. A majority of respondents noted that there was a significant reduction of Government involvement concerning contractual matters, but when it came to technical issues, the level of Government involvement actually increased. A large, traditional contractor stated a common perception, "The Government is very involved but less formally and in more depth." It appears that reduced reporting requirements are forcing greater personal contact by individuals performing under the Agreement. With the number of Federal employees continuously decreasing, the level of involvement that is required on a Section 845 Agreement may be difficult to sustain. A decreased level of involvement may prevent or hinder the Government/Contractor relationship.

E. MILESTONES

1. Benefits

- ***Good Program Planning and Information Exchange***

The majority of respondents felt that payable milestones were a good payment method and believed that the Government was sufficiently involved in milestone determination. COSSI participants generally found that early, joint involvement in milestone determination facilitated the exchange of information, cutting down on

redundancy and helping the program to stay focused. One small, non-traditional contractor who was pleased with the sharing of information during the milestone formulation commented: "The milestones were developed jointly. We went back and forth. Each side prevented the other side from reinventing the wheel."

Joint milestone determination allowed both sides to voice their concerns early in the program, at a time when influencing the direction of the project was possible at a lower cost. One small, traditional contractor spoke of the exchange of information that occurred at the first milestone briefing:

[The] first milestone was a design review. We educated [the Government Representatives] on the capabilities of the system. They were telling me how we were going to integrate into the system. There were many suggestions. We accepted some that delayed the program. Of course there was no problem with an extension.

2. Limitations

- ***Payment***

Roughly a quarter of the participants in COSSI reported that they had payment problems. Most attributed the problems to the fact that many individuals in the Government payment administrative system are unfamiliar with the unique payment procedures for a Section 845 Agreement. "After all, it is very different. No DD250 and all," stated one large, traditional contractor.

Payment problems become a critical limitation because they can overshadow all other benefits. Fortunately, as the use of these agreements becomes more common, individuals involved in the process will gain experience. To help mitigate any

problems and limit delays, an Agency involved in a Section 845 Agreement must be proactive and do as much coordination as is possible, prior to the submission of an invoice. It can also employ more innovative, flexible payment methods based on the contractor's specific needs.

An additional payment limitation raised by one small, non-traditional contractor is that milestone payment is only for work that is completely finished.

[The] down side is that I can't get paid for partial work completed. If I want to speed up the process and complete seventy percent [of the milestone] in less than three months, I have to wait until the other thirty percent are completed before receiving pay.

This contractor viewed this limitation as a barrier to innovation. He was adamant that in the commercial world you get paid for what you do. An Agency planning to use a Section 845 Agreement may want to establish flexible payment options within the milestones, in order to encourage innovation and promote early project completion. Once the Government payment administration system becomes accustomed to the Section 845 payment procedures, an increased number of payments should not be an issue.

F. INTELLECTUAL PROPERTY (IP) AND DATA RIGHTS

1. Benefits

- *Perceived Flexibility Increased Confidence and May Have Increased Participation*

IP and Data Rights were an important issue for all participants, even for those that said it was not a major concern. The explanation for this apparent

contradiction is that the participant's level of concern was driven by how they viewed their ability or the Government's ability to protect their rights, not what the intrinsic value of the rights were. In other words, no participant would deny that IP and Data Rights are important in today's competitive. But contractors, who were confident that the Government would honor their IP or Data Rights for a previously developed item, did not consider it to be a major concern while negotiating their COSSI Agreement. Their confidence was expressed by a small, non-traditional contractor; "We had proprietary data going in and we protected that. Not really an issue."

The contractors' confidence stemmed from the fact that the Government's stated position regarding IP and Data Rights was one of flexibility. More specifically, the Government's position, regarding the allocation of rights and grants of licenses for IP developed during Stage I, was one of negotiation. [Ref. 29:p. 5.0] The Government also stated that it would negotiate rights and licenses with regard to patentable inventions, although the Government's going in position would be the same as if the Bayh-Dole Act were applicable. [Ref. 29:p. 5.0] And finally, with regard to technical data, the solicitation stated: "We are not interested in obtaining any special Government rights in proprietary technology for the interested kit or in the underlying commercial product or process." [Ref. 29:p. 5.0]

The reality or depth of the Government's flexibility regarding IP and Data Rights is unknown. A comparison of the IP and Data Rights negotiated as part of these Agreements with those that would have been mandated under the provisions of the Bayh-

Dole Act, or which would have typically been achieved in negotiation with the Government, was not part of this research. Even if the terms in all three cases were found to be very similar, this would not change the fact that approximately three-fourths of the contractors perceived that the Government's flexibility allowed them to protect their existing rights.

This perception is critical, especially when dealing with IP and Data Rights because these are the "life blood" of a firm. No company is going to willingly sacrifice its rights. The contractor's perception of Government flexibility may have resulted in increased participation.

2. Limitations

- ***Delineation Requires Foresight***

Approximately one quarter of the respondents were very concerned about protecting future rights of items developed during COSSI. In order to maintain control, they very carefully delineated where the commercial and Government portions of the cost share would be spent. As one large, traditional contractor stated, "He who pays for it gets to keep the rights."

This strict delineation of IP and Data Rights, based on who pays for a specific work effort, requires that Government representatives thoroughly understand the composition of the item, its intended use and anticipated future uses. This very strict analysis and thorough understanding may not always be possible, given the personnel or time available. The Government may in turn, "give away" more rights than it intended.

In most cases, an error of this sort will have little impact because the Government very often does not need extensive rights. However, the retention or granting of IP and Data Rights should be made from an informed position, and not haphazardly. An Agency preparing to use a Section 845 Agreement must anticipate the level of delineation required and be properly prepared to negotiate appropriate IP and Data Rights.

G. COST SHARING

1. Benefits

- ***Improved Government/Contractor Relationships***

The majority of the respondents stated that the COSSI requirement to cost share had a positive effect on their relationship with the Government. Most of the respondents in this category believed that cost sharing had given both parties a stake in the effort, and therefore had encouraged frank communication. Many also said that cost sharing prevented one side from telling the other how to do the work, and as a result, they worked more closely together. A large, traditional contractor commented on the leveling effect of cost sharing: "The Procuring Contracting Officer (PCO) had the habit of falling into the 'We Are The Customer, Listen To Us' role. Of course, we quickly pointed out that we had put up half of the funds. Then we could talk."

This improved relationship has helped to keep the effort on track and ensured that the project is meeting the requirements of both the Government and the contractor. A large, traditional contractor stated, "We have worked together and developed the project together, to ensure that we get exactly what we want."

2. Limitations

- ***May be Difficult to Determine Government Return on Investment (ROI)***

The Government percentage of the cost share ranged from 94% to 32%.

With such a wide variation, it is important for the Government to understand the implications of where and how its portion of the cost share is being applied. For example, is the contractor's 6% being applied to the technologically advanced areas that have future potential value, and the Government's 94% being applied to the other areas? If so, then what is the Government's return on investment (ROI)? It may be that the future O&S cost savings are so significant over a 10-year period that the Government ROI will far exceed its cost share, and that giving the contractor all rights to the technology is therefore an appropriate step. It is impossible to make a generic statement that would fit all scenarios, but it is appropriate to advise agencies preparing to use a Section 845 Agreement to carefully analyze the Government's ROI.

- ***May Limit Participation by Smaller Contractors***

Two respondents, both small, non-traditional contractors, stated that cost sharing was a burden and that it was very difficult for them to come up with their portion. The continued requirement to cost share may create a barrier that will limit participation by small contractors. If this happens, it could eliminate an important segment of innovative firms for which OTs were intended.

An Agency preparing to use a Section 845 Agreement must be aware that cost sharing is not a Congressionally mandated requirement; it does not have to use it if it

is not appropriate. The Agency should construct the terms of the Agreement such that the benefits of cost sharing are balanced with the potential negative effects. It may require greater flexibility in determining what constitutes an appropriate cost share contribution but must also take into account the Government's expected ROI.

- ***Uncapped Cost Share May Put Smaller Contractors in Financial Jeopardy***

The fact also that the Government portion of the cost share is capped, while the contractor portion is not, may place some of the smaller contractors in financial jeopardy. At least two of the COSSI 97 participants complained that unforeseen costs had driven their cost share significantly over what they had projected. One of the firms, a large, traditional contractor, whose cost share has increased 100%, admitted that they had under-bid but did not know that it would cost this much. The other, a small, non-traditional contractor, did not state the nature of the overruns. Fortunately, neither company is in danger of going out of business, and both still believe that it was worthwhile to stay with the project. But, each indicated that the stakes for transitioning to Stage II were now significantly higher.

It is important to remember that Section 845 Authority is currently permitted only for the development of prototypes. Prototype development is inherently risky, even in a case like COSSI that involves the modification of a commercial item. It is easy to envision a situation in which a smaller company, with limited resources, could have difficulty meeting its obligations. The increased, informal communications that typically accompany the use of a Section 845 Agreement should allow for the early

detection of financial problems. But it may be necessary to adjust the milestones to increase cash flow or alter the program to reduce total expenditures. An Agency considering the use of a Section 845 Agreement should carefully weigh the benefits of cost sharing, the financial ability of the firm to pay, and the probability of an over run.

H. TRANSITION FROM STAGE I TO STAGE II

1. Benefits

- ***Encouraged Participation***

The solicitation issued by DUAP specifically stated that if a contractor is selected to proceed to Stage II, then the purchase of the modification kits is to occur without re-competition, at a fair and reasonable price based on an analysis of the value of the kits to the acquiring Service. According to COSSI training materials used by DUAP, the initiative was structured this way in order to offer the contractor an incentive to cost share and to protect the contractor's investment. It was also intended to help the Services get the modification kits into the field faster.

The researcher did not initially intend to determine how important the terms, for the transition from Stage I to Stage II, were in the participant's decision to respond to the COSSI solicitation. However, several firms commented that this aspect of the agreement was a selling point that persuaded them to pursue this business opportunity. One large, traditional contractor stated, "This aspect certainly made the agreement more attractive." There was a strong feeling among these contractors that this was an appropriate balance to the cost sharing requirement. In effect, they viewed the

terms of the transition as their payoff after a difficult contribution. A large, traditional contractor commented: "Put a positive spin on it all. Good carrot! If we do what we are supposed to and meet our goals; then the [Service] is committed to buy [the modification kit]."

- ***Encouraged Teamwork Between the Government and Participants***

Many of the participants stated that the open option for the Government to award Stage II helped to ensure cooperation and teamwork. One small, traditional contractor commented: "The contractor is obliged to perform better. We want the Government to buy this at Stage II." A large, traditional contractor agreed that teaming with the Government was the best way to ensure that they would proceed to Stage II. "It is our inherent interest to work with the Government because we are trying to secure funding for Stage II and a production guarantee."

2. Limitations

- ***Terms of the Transition Not Yet Approved***

The COSSI training materials emphasize that the key to not re-competing Stage II is the establishment of target price prior to starting Stage I. The rationale is that the Competition and Contracting Act (CICA) requirement for full and open competition is satisfied if the target price is established as a result of a competitive solicitation, selection and negotiation process. The target price is to cover all deliverables, and is to be the price which is expected to be considered "fair and reasonable" at Stage II. [Ref. 42]

This approach is problematic for several reasons: 1) the Government is creating a sole-source situation through its own actions; 2) establishing an accurate target price for production items in advance of developing a prototype is difficult; and 3) competition requirements for Stage II do not apply to Stage I. The DoD and the Services have recognized that there are issues concerning competition, which were not considered during the crafting of the initiative, and which could become the basis for legal protests by non-COSI firms that feel that they are being unfairly excluded from competing for Government business. The Government is pursuing various strategies to mitigate this risk. The most common approach being considered is to request Congressional approval for a sole-source purchase. The researcher did not determine if any Service has submitted a request but Congressional approval is not guaranteed.

Only a few of the Contractors were aware that the COSI terms of transition were a high-level issue. One large, non-traditional contractor was very concerned about the issue. He stated:

In effect this is to be a sole-source procurement for Stage II. Other companies are going to raise a fuss, saying that they can provide similar products and that they did not have an opportunity to bid. I envision a steady stream of protests. I don't see any reason why an exemption for sole-source will apply.

A large, traditional contractor who was also aware of the potential problems was not as forgiving:

Regulations will force [the Government] to compete or my competitors will put up a stink and force competition. This will cause a delay and result in lost time, which equals lost resources. I believe the Government doesn't want to compete this but it may have too. But if I have done all that was required at the required price, then I should get Stage II. ...If there is money and I have met all the gates and don't get Stage II, then I will put in a claim. I must try to protect my investment.

Agencies preparing to use Section 845 Authority must carefully consider the implications of transitioning from prototype to production and obtain appropriate waivers and exemptions, before issuing the solicitation.

- ***Potential to Destroy Long-term Relationships and Threaten the Entire Initiative***

If DUAP is forced to compete Stage II, the transition will be delayed, but the financial impact on many of the contractors may not be that severe. Some contractors will be able to market their product to the commercial sector or other Services with little modification. Approximately one fourth of the respondents are not counting on a guaranteed transition to Stage II. "I'm in this with my eyes open, in commercial supply you take risks," said one small, non-traditional contractor.

For other Stage I contractors, the effects of competition will be mitigated by the fact that they will have a clear advantage over other competitors and will probably win the competition. However, this may not always be the case. For example, a small contractor participating in Stage I, who has an innovative, marketable product, may attract the attention of large, traditional contractors. These large players may be able to gather the resources on short notice to offer stiff competition. One small, non-traditional contractor is currently very concerned that this scenario is unfolding.

[The Transition is a] Huge Concern! I consider our program to be a major success; perhaps too much so in that we have drawn a lot of attention. The big guys, [He listed two large, traditional contractors] are very interested in entering our field. Competition is on the rise. Lots of outside pressure to ensure that the Government does not exercise its Stage II option and that they compete Stage II. Rumor is that the Congressional Representatives from the big players are applying pressure. I am a small guy but I am using my contacts to fight back.

In most cases, the actual effects of the Government opening Stage II to competition will probably be minimal; however, the impact on the contractors' perception of the COSSI initiative may be very great. The majority of the contractors are not aware that the Government has concerns over Stage II; they may view any changes to the terms of the transition as a breach of trust. Since they have been operating under the assumption that if they meet their obligation by achieving the program's objectives, they expect the government to meet its obligation. One large, traditional contractor put it quite simply: "We are operating under the assumption that if we meet all the wickets as laid out, we will get the production contract."

The impact of this breach will be particularly severe for those small, non-traditional contractors who will see this as a typical self-serving, Government action. One small, non-traditional contractor will be particularly hard hit:

We have nothing to gain unless we are able to enter Stage II. That is our carrot. Some of the larger companies will be able to turn around and go directly commercial with the product at the end of Stage I, so they won't be hurt if Stage II falls through. We are a small business and can not do this. We need some time to really get established. Stage II serves as this time!

The Government's credibility with these contractors will be strained and possibly lost. It will be much more difficult for the Government to "get on the shoulders of industry," as Perry suggested, if industry can't trust the Government to uphold its innovative agreements.

I. CHAPTER SUMMARY

This chapter has presented the interview topic areas and identified specific benefits and limitations within each. Based upon these findings, the following chapter presents conclusions and recommendations; provides answers to the research questions; and gives areas for further research.

V. CONCLUSIONS AND RECOMMENDATIONS

This final chapter presents the researcher's conclusions and makes recommendations for an Agency using or preparing to use Section 845 Authority. Additionally, a section of this chapter is devoted to summarizing answers to each of the research questions presented in Chapter I and to identifying areas for follow-on research.

A. CONCLUSIONS

The following is a consolidation of the findings detailed in Chapter IV. The Reader will see that the participants in COSSI 97, generally found Section 845 Agreements to be effective tools, allowing for improved relationships with the Government and giving the Government more "bang" for its investment. And the Reader will also see that the full potential of the Authority can be best achieved by innovative, trained Agreements Officers who are thoroughly knowledgeable about the program's objectives and requirements.

1. Benefits

The use of Section 845 Agreement has resulted in an expanded vendor base; 11 of the 30 participants were non-traditional contractors and six of these would not have responded if a traditional contracting method had been used.

Section 845 Agreements were more effective than traditional contracting methods, in that negotiations were quicker and flexibility was dramatically increased. This increased effectiveness led to less wasted effort and more "bang" for each Government dollar invested.

When using a Section 845 Agreement, communication between the Government and the contractor increased, because the relationship was less formal and information exchanges occur more frequently. Joint milestone determination also enhanced communication, because it provided an avenue for the early exchange of information and good program planning.

The relationship between the Government and the contractors also improved because there was a feeling of mutual dependence, fostered by the requirement for cost sharing and by the open option for the Government to award the Stage II. These aspects of COSSI 97 gave each side a stake in the effort and encouraged frank communication, cooperation and teamwork.

Flexibility with regard to Intellectual Property (IP) and Data Rights, under a Section 845 Agreement, increased contractor confidence that they could protect existing and future rights, and resulted in increased participation.

2. Limitations

The permanency of this expanded vendor base is not guaranteed; it is dependent upon the Government's ability to establish long-term relationships with non-traditional contractors. This can, in part, be accomplished by the Government abiding by its promises as set forth in the COSSI solicitation. The Government's failure to ensure the smooth, sole-source, transition from Stage I to Stage II may threaten this initiative; and may thwart future innovative initiatives that seek to attract non-traditional contractors.

Many participants attributed effectiveness issues to the people involved, and not solely to the use of the innovative contracting method. This requires that the Government select for its representatives only those individuals who are naturally innovative and trained in the intent of the Agreement.

The use of a Section 845 Agreement requires the Government representative to have thorough knowledge of the program's objectives and requirements in order to perform the difficult tasks of delineating IP and Data Rights; conducting a Cost/Benefit Analysis; and determining the Government's return on investment (ROI). Government representatives must be aware that the increased, informal involvement, with less emphasis on formal reports, may require additional Government personnel to sustain.

Inexperience with Section 845 Agreements has limited the Government representatives from being or feeling empowered; so the COSSI participants saw no noticeable shift in the level of decision-making. Inexperience or unfamiliarity with the payment process for a Section 845 Agreement also caused payment delays for some of the participants.

A couple of small, non-traditional contractors perceived cost sharing as a burden. This perception is a potential barrier that may limit participation in the future. The uncapped cost share for contractors could also place smaller contractors in financial jeopardy if the effort has large, unexpected cost overruns.

B. RECOMMENDATIONS

1. Provide Follow-on Training for Non-traditional Contractors

An Agency currently using a Section 845 Agreement can effect the expansion of the vendor base by creating an environment that will foster long-term relationships with non-traditional contractors. This can be achieved by providing the contractor with follow-on training that focuses on the latest DoD acquisition reform efforts and the inherent, but overlooked, flexibility of the FAR. Training of this nature should include a thorough review of the FAR Guiding Principles.

2. Perform a Thorough Analysis of All Appropriate Contracting Methods

An Agency that believes that the use of a Section 845 Agreement may be appropriate for a particular project must carefully analyze all possible acquisition methods. It should avoid being locked into one method simply because it requires the least regulatory conformance. It must consider the potential contractors and the status of their accounting and reporting systems; the innovative nature and training levels of the personnel available; and work load implications.

3. Select Innovative Agreements Officers

An Agency considering the use of a Section 845 Agreement must ensure that it has the appropriate people for the job. Ideally, these individuals would have commercial contracting experience, but in the absence of this very specific experience, it must select individuals who function well with little supervision and who have shown innovation in using the current system.

4. Provide Broad Training to all Participants

An agency preparing to use or currently using a Section 845 Agreement must provide broad training to its representatives, including Defense Contract Management Command (DCMC), Defense Finance Accounting Service (DFAS), and other Government Agencies involved in the Agreement; as well as to the contractors involved. This training should address specific concerns of the particular project but also include an in-depth explanation of the purpose and intent of using the Section 845 Agreement.

5. Conduct a Thorough Cost/Benefit Analysis

Prior to using Section 845 Authority, an Agency must thoroughly understand the implications of its use. A useful tool for doing this is a Cost/Benefit Analysis. This analysis should consider experience level of the contractor; the level of the Government's cost share (if any); the areas to which the Government's portion of the cost share will be applied; the complexity of the item; and the intended use of the item.

6. Document and Disseminate Lessons Learned

Documented and widely disseminated lessons learned are a source of precedence and provide a basis for quick, sound decisions at the lowest levels. Agencies that emphasize the documentation and dissemination of Lessons Learned create a climate that supports innovation and will help to ensure the success of their Agreement.

7. Consider Creative Payment Methods

When constructing a Section 845 Agreement, look for creative methods of payment that are most suitable for the contractor's situation and which provide

appropriate incentives. A possible example of this is flexible payment options within each milestone.

8. Plan in Advance for the Transition

An Agency preparing to use a Section 845 Agreement must carefully consider the implications of transitioning from "outside the FAR" to "inside the FAR," and obtain appropriate waiver and exemptions before issuing the solicitation.

C. ANSWERS TO RESEARCH QUESTIONS

1. What are Section 845 Agreements?

Reference: Chapter II

Legislation in 1989, which was codified at 10 U.S.C. 2371, gave DARPA the authority to "enter into transactions other than contracts, cooperative agreements, and grants." [Ref. 43] DARPA has interpreted the statute to mean that OTs are a class of transactions outside the procurement and assistance laws and regulations including the Federal Acquisition Regulation (FAR), Defense Federal Acquisition Regulation Supplement (DFARS) or other laws and regulations specific to the procurement system. [Ref. 15: p. 35]

In 1993 Congress amended the original OT Authority to allow DARPA expanded use of OTs under Section 845. As finally enacted, the statute authorized agreement authority for military technology demonstrations and prototype projects. Section 845 Agreements require competition to be used to the maximum "extent practicable," do not require cost sharing, and are not authorized to be used for production.

Section 804 of National Defense Authorization Act for Fiscal Year 1997 extended the authority of Section 845 through September 30, 1999, and made it available to the Secretaries of the Military Departments. For the purpose of this thesis, even the expanded authority is referred to as Section 845 Authority.

2. What is the Commercial Operations and Support Savings Initiative (COSSI) 1997?

Reference: Chapter II

COSSI is a pilot initiative developed by the Dual-Use Applications Program (DUAP) to reduce Operations & Support (O&S) costs by inserting commercially developed products and processes into fielded military systems. COSSI is a two-stage initiative. During Stage I, participants will conduct non-recurring engineering to create a kit that can be inserted into a fielded military system. The contracting vehicle for Stage I is Section 845 Authority. Stage II is the actual purchase of a reasonable production quantity of kits, and the insertion of the kits into fielded military systems. Stage II will be carried out using a traditional contracting method.

3. Was the use of a Section 845 Agreement a primary factor in attracting firms to respond to the COSSI solicitation?

Reference: Chapter III

Twenty-four of 30 participants in the COSSI 97 reported that the use of a Section 845 Agreement was not an important factor in their decision to respond to the COSSI solicitation.

4. Were the firms selected for COSSI 97 Traditional or Non-traditional Government contractors?

Reference: Chapter III

Nineteen of 30 COSSI 97 participants were traditional contractors. Of these 19, 15 were large businesses and four were small businesses. 11 of the 30 COSSI 97 participants were non-traditional contractors. Three of the 11 were large businesses and eight were small businesses.

5. What benefits have the contractors found when participating in an agreement crafted with Section 845 Authority?

Reference: Chapter IV

Benefits identified by the contractors include attracting a broader vendor base; increased effectiveness; improved informal relationships between contractors and Government representatives; improved relations based on cost sharing requirement; and good program planning and information exchange based on milestone determination.

Additional benefits include the possibility of non-traditional contractors beginning a long-term relationship with the Government and increased participation through greater confidence with regard to IP and Data Rights.

6. What limitations have the contractors found when participating in an agreement crafted with Section 845 Authority?

Reference: Chapter IV

Limitations identified by the contractors include a dependence upon the innovation of Agreements Officers; no change to the level of decision-making; payment problems; possible limited participation by smaller contractors as a result of cost sharing requirement; uncapped cost share may put smaller contractors in financial jeopardy; and failure of the Government to follow through on solicitation promise may threaten entire initiative.

Additional limitations include the perception that traditional contractors are using Section 845 Authority as a way around the traditional procurement rules; uncertainty of the expanded vendor base; a thorough analysis of contracting method is required; traditional contracting methods could have been used; may be more manpower intensive; delineation of IP and Data Rights requires foresight; determination of Government Return on Investment may be Difficult; and terms of the transition from Stage I to Stage II are not yet approved.

7. Based on their COSSI experience, would the contractors enter into another Section 845 Agreement?

Reference: Chapter III and IV

All participants, except one, reported that they have had a positive experience using a Section 845 Agreement under COSSI. All participants agreed that they would participate in future Section 845 Agreements. One participant qualified his responses by saying that they would participate in the future if Lessons Learned from previous Agreements were incorporated.

D. AREAS FOR FURTHER STUDY

1. Differences in Negotiated Intellectual Property (IP) and Data Rights

Compare the IP and Data Rights negotiated under an Section 845 Agreement with those that would have been mandated by the Bayh-Dole Act. Determine what differences exist and how significant these differences are, given different scenarios.

2. Benchmark Commercial-Like Practices

Benchmark how commercial firms conduct Research and Development (R&D) to determine if the "commercial-like" aspects of OTs are in fact commercial-like. Develop a list of commercial-like practices that could be used in training Government representatives.

3. Employment of Other Transactions (OT)

Examine the situations in which OTs have been used. Determine what employment similarities and differences exist between Agencies. Determine the factors that contribute to the successful employment of an OT and/or which prohibit the use of an OT. Develop a tool, such as a decision matrix, to assist decision makers in determining when the use of an OT is appropriate.

4. Vendor Base

Determine if non-traditional contractor who participated in an OT are continuing to conduct business with the Government. Investigate the reasons why or why not the vendor base is expanding or contracting. Determine what effect the use of Section 845 Authority is having on competition.

5. Inherent Flexibility of Traditional Contracting Methods

Examine the use of OTs and determine if the project could have been carried out using traditional contracting methods. Examine the level of flexibility that would have been required if a traditional contracting method had been used. Determine what cultural and statutory changes are required to attain this level of flexibility when using traditional contracting methods.

APPENDIX A COSSI 97 PARTICIPANTS AND PROJECTS

Company Name	Title of the Agreement	POC (s) Position(s)	Large or Small* Business	Traditional or Non-Traditional** Contractor
DWA Aluminum Composites	Discontinuously Reinforced Aluminum	<ul style="list-style-type: none"> • President • VP Finance 	Small	Traditional
Harris Company	Mini-Mutes Replacement Processor Demonstration	<ul style="list-style-type: none"> • Senior Contract Administrator • Contract Administrator 	Large	Traditional
JAYCOR	Data Distribution Kits for Command Centers	<ul style="list-style-type: none"> • CEO • Contract Administrator 	Small	Traditional
McDonnell Douglas Corporation	Commercially Based Processing for the F-15E	<ul style="list-style-type: none"> • Senior Contract Administrator 	Large	Traditional
General Electric Aircraft Engines	F-16 C/D F110 Engine Ejector Nozzle	<ul style="list-style-type: none"> • Contract Manager • Contract Manager 	Large	Traditional
Raytheon Company	Versa Module Europa Contingency Antenna Position Control Unit	<ul style="list-style-type: none"> • Program Manager 	Large	Traditional
Sikorsky	Advanced Flight Control Computer for UH-60A/L	<ul style="list-style-type: none"> • Contract Administrator 	Large	Traditional

TRW, Inc.	Mainframe Computer Replacement for the Guardrail Common Sensor	<ul style="list-style-type: none"> • Program Manager • Contract Administrator 	Large	Traditional
Tracor Aerospace, Inc.	Heads-Up Display	<ul style="list-style-type: none"> • Director of Contracts 	Large	Traditional
Cryptek Secure Communications	Dynamic Virtual Network	<ul style="list-style-type: none"> • President and CEO 	Small	Non-Traditional
Mobile Datacom Corporation	Modification to the Movement Tracking System Satellite Communication System	<ul style="list-style-type: none"> • VP Marketing 	Small	Non-Traditional
Altamont Technologies, Inc.	M129A4 Composite Semi-trailer Van, Supply Tactical 12 Ton 4 Wheel	<ul style="list-style-type: none"> • PM for Government and Military Projects and Director of Procurement • 	Small	Non-Traditional
Kollsman, Inc.	Switchable Eyesafe Laser Rangefinder Designator for the OH-58D Kiowa Warrior Mast Mounted Sight	<ul style="list-style-type: none"> • Marketing Manager • Contracts Administrator 	Large	Traditional
Ques Tech Packaging, Inc.	Polymeric Tray Kits	<ul style="list-style-type: none"> • System Engineer 	Small	Non-Traditional
Sikorsky	H-60 Growth Rotor Blade	<ul style="list-style-type: none"> • Contracting Administrator 	Large	Traditional
McDonnell Douglas Helicopter Systems	Affordable Apache Main Rotor System	<ul style="list-style-type: none"> • Contracts Administrator 	Large	Traditional
BF Goodrich (Aircraft Integrated Systems Division)	Helicopter Usage Monitoring and Diagnostic System	<ul style="list-style-type: none"> • Contract Manager 	Large	Non-Traditional

Newco, Inc.	E-2C Blade Inspection Kit	<ul style="list-style-type: none"> • President 	Small	Non-traditional
Electrosore, Inc.	Military Qualification of a High-Reliability, Light-Weight 24V/30Ah Aircraft Battery	<ul style="list-style-type: none"> • Assistant VP, Marketing 	Small	Non-Traditional
McDonnell Douglas Corporation	Commercially Based Processor for F/A-18C/D	<ul style="list-style-type: none"> • Senior Contract Administrator 	Large	Traditional
Alliant/Valence, LLC.	Lithium Ion Polymer Batteries	<ul style="list-style-type: none"> • Program Manager 	Large	Non-Traditional
Signal Processing Systems	Sonar Retriever Set (An/BQR-22a)	<ul style="list-style-type: none"> • Contracts Administrator 	Large	Traditional
VISICOM Laboratories, Inc.	Development of Reconfigurable Logic Engine for legacy System (An/SPS-67)	<ul style="list-style-type: none"> • Contract Administrator 	Small	Traditional
Physical Acoustics Corporation	Acoustic Emission and Ultrasonic Testing For Periodic Inspection of Pneumatic Pressure Vessels	<ul style="list-style-type: none"> • Lead Engineer 	Small	Non-Traditional
Spatial Integrated Systems	Advanced Digital/Logistical Integrated Data Capture and Analysis	<ul style="list-style-type: none"> • President and Director of Technology 	Small	Non-Traditional
Raytheon Texas Instruments Systems, Inc	FltCast Program	<ul style="list-style-type: none"> • Senior Program Manager 	Large	Traditional

Tivoli Systems***	Cutting Costs with Tivoli's Integrated Systems Management Tools	* Accounts Manager	Large	Traditional
Caterpillar	Laser Cladding Applications in the Operation and support of Land Based Vehicles	• Contract Administrator	Large	Non-Traditional
Howell Instruments	Test Cell Capability for the H-53 & H-46 Series Helicopters	• Contract Administrator	Small	Traditional
California Microwave Government Electronics***	USMC Signal Intelligence/ Electronic Warfare Systems Inter-operability	• Contract Administrator	Large	Traditional

* For the purpose of this study, Small Businesses are categorized as those with less than 500 employees. Large businesses are those with 500 or more employees.

** For the purpose of this study, Traditional Contractors are defined as those whose business processes are predominately oriented towards doing business with the Government. Non-traditional Contractors are those whose business processes are oriented towards doing business with the commercial sector.

*** Company Size and Category are unconfirmed

APPENDIX B SAMPLE 845/804 AGREEMENT

S A M P L E 845/804 A G R E E M E N T

AGREEMENT

BETWEEN

(INSERT COMPANY NAME AND ADDRESS)

AND

(INSERT MILITARY CUSTOMER)

CONCERNING

(INSERT TITLE OF THE COMMERCIAL O&S SAVINGS INITIATIVE)

Agreement No.: MDA972-97-C-XXXX

Military Customer Funding document number:

Total Amount of the Agreement: \$

Total Estimated Government Funding of the Agreement: \$

Total Incremental Funding Available for Obligation: \$

Effective Date of this Action:

Authority: 10 U.S.C. § 2371 and Section 845 of the 1994 National Defense
Authorization Act, as amended.

Line of Appropriation:

AA

\$

This Agreement is entered into between the United States of America, hereinafter called
the Government, represented by (INSERT MILITARY CUSTOMER) and (INSERT
COMPANY NAME) pursuant to and under U.S. Federal law.

FOR (INSERT COMPANY NAME)

FOR THE UNITED STATES OF
AMERICA (INSERT MILITARY
CUSTOMER)

(Signature)

(Signature)

(Name, Title)

(Date)

(Name, Title)

(Date)

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ARTICLE I: SCOPE OF THE AGREEMENT

A. Background

1. THIS PARAGRAPH(S) DESCRIBES THE VISION OF THE PROGRAM AND SHOULD ANSWER THE FOLLOWING QUESTIONS: WHAT IS THE AGREEMENT ALL ABOUT? WHAT IS THE SYSTEM CURRENTLY FIELDDED? WHO IS THE MILITARY CUSTOMER? WHAT IS THE COMMERCIAL PRODUCT BEING INSERTED? WHERE IS THE SAVINGS REALIZED AND OVER WHAT PERIOD OF TIME? ARE THERE ADDITIONAL DUAL-USE (MILITARY AND COMMERCIAL) APPLICATIONS BEYOND THE GOALS OF THIS PROGRAM?

B. Scope

1. Company ABC (ABC) shall perform a research and development program (Program) including test and qualification for insertion of a commercial product into an existing military system described as follows:

(INSERT RESEARCH AND DEVELOPMENT EFFORT).

The research shall be carried out in accordance with the Statement of Work incorporated in this Agreement as Attachment 1. ABC shall submit or otherwise provide all documentation required by Attachment 2, Report Requirements.

2. ABC shall be paid for each Payable Milestone accomplished in accordance with the Schedule of Payments and Payable Milestones set forth in Attachment 3 and the procedures of Article V. Both the Schedule of Payments and the Funding Schedule set forth in Attachments 3 and 4 respectively may be revised or updated in accordance with Article III.

3. The Government and ABC (Parties) estimate that the Statement of Work of this Agreement can only be accomplished with an ABC aggregate resource contribution of \$ (INSERT DOLLAR AMOUNT) from the effective date of this Agreement through (INSERT NUMBER OF MONTHS) () months thereafter. ABC intends and, by entering into this Agreement, undertakes to cause these funds to be provided. ABC contributions will be provided as detailed in the Funding Schedule set forth in Attachment 4. If either DARPA or ABC is unable to provide its respective total contribution, the other Party may reduce its project funding by a proportional amount.

C. Goals / Objectives

1. The goal of this Agreement is (INSERT GOAL(S) OF AGREEMENT).
2. The Government will have continuous involvement with ABC. The Government may also obtain access to research results and certain rights in data and patents pursuant to Articles VII and VIII. DARPA and ABC are bound to each other by a duty of good faith and best research effort in achieving the goals of the Program.
3. This Agreement is an "other transaction" pursuant to 10 U.S.C. § 2371 and section 845 of the 1994 National Defense Authorization Act as amended. The Parties agree that the principal purpose of this Agreement is for the Government to support and stimulate ABC to provide its best efforts in the development of a commercial prototype for insertion into fielded Department of Defense military systems. The Federal Acquisition Regulation (FAR) and Department of Defense FAR Supplement (DFARS) apply only as specifically referenced herein. This Agreement is not a procurement contract or grant agreement for purposes of FAR Subpart 31.205-18.

ARTICLE II: TERM

A. The Term of this Agreement

The Program commences upon the date of the last signature hereon and continues for (INSERT NUMBER OF MONTHS) () months. If all funds are expended prior to the (INSERT NUMBER OF MONTHS) ()-month duration, the Parties have no obligation to continue performance. Provisions of this Agreement, which, by their express terms or by necessary implication, apply for periods of time other than specified herein, shall be given effect, notwithstanding this Article.

B. Termination Provisions

Subject to a reasonable determination that the program will not produce beneficial results commensurate with the expenditure of resources, either Party may terminate this Agreement by written notice to the other Party, provided that such written notice is preceded by consultation between the Parties. In the event of a termination of the Agreement, it is agreed that disposition of Data developed under this Agreement, shall be in accordance with the provisions set forth in Article VIII, Data Rights. The Government and ABC will negotiate in good faith a reasonable and timely adjustment of all outstanding issues between the Parties as a result of termination. Failure of the Parties to agree to a reasonable adjustment will be resolved pursuant to Article VI, Disputes. The Government has no obligation to reimburse ABC beyond the last completed and paid milestone if ABC decides to terminate.

C. Extending the Term

The Parties may extend by mutual written agreement the term of this Agreement if funding availability and performance reasonably warrant. Any extension shall be formalized through modification of the Agreement by the Agreements Officer and the ABC Administrator.

ARTICLE III: MANAGEMENT OF THE PROJECT (NOTE: THIS ARTICLE MAY BE SUBSTANTIALLY REVISED DEPENDING ON THE FACTS OF EACH AGREEMENT.)

A. Management and Program Structure

ABC shall be responsible for the overall technical and program management of the Program, and technical planning and execution shall remain with ABC. The military customer shall provide recommendations to program developments and technical collaboration and be responsible for the review and verification of the Payable Milestones.

B. Program Management Planning Process

Program planning will consist of an Annual Program Plan with inputs and review from ABC and the military customer, containing the detailed schedule of research activities and payable milestones. The Annual Program Plan will consolidate quarterly adjustments in the research schedule, including revisions/modification to payable milestones.

1. Initial Program Plan: ABC will follow the initial program plan that is contained in the Statement of Work (Attachment 1), and the Schedule of Payments and Payable Milestones (Attachment 3).

2. Overall Program Plan Annual Review

(a) ABC, with the military customer review, will prepare an overall Annual Program Plan in the first quarter of each Agreement year. (For this purpose, each consecutive twelve (12) month period from (and including) the month of execution of this Agreement during which this Agreement shall remain in effect shall be considered an "Agreement Year".) The Annual Program Plan will be presented and reviewed at an annual site review which will be attended by ABC Management, the military services

customer, senior service management as appropriate, and other service program managers and personnel as appropriate. ABC, with the military service customer participation and review, will prepare a final Annual Program Plan.

(b) The Annual Program Plan provides a detailed schedule of research activities, commits ABC to use its best efforts to meet specific performance objectives, includes forecasted expenditures and describes the Payable Milestones. The Annual Program Plan will consolidate all prior adjustments in the research schedule, including revisions/modifications to payable milestones. Recommendations for changes, revisions or modifications to the Agreement which result from the Annual Review shall be made in accordance with the provisions of Article III, Section C.

C. Modifications

1. As a result of quarterly meetings, annual reviews, or at any time during the term of the Agreement, research progress or results may indicate that a change in the Statement of Work and/or the Payable Milestones, would be beneficial to program objectives. Recommendations for modifications, including justifications to support any changes to the Statement of Work and/or the Payable Milestones, will be documented in a letter and submitted by ABC to the military service customer with a copy to the government Agreements Officer. This documentation letter will detail the technical, chronological, and financial impact of the proposed modification to the research program. ABC shall approve any Agreement modification. The Government is not obligated to pay for additional or revised Payable Milestones until the Payable Milestones Schedule (Attachment 3) is formally revised by the government Agreements Officer and made part of this Agreement.

2. The military service customer shall be responsible for the review and verification of any recommendations to revise or otherwise modify the Agreement Statement of Work, Schedule of Payments or Payable Milestones, or other proposed changes to the terms and conditions of this Agreement.

3. For minor or administrative Agreement modifications (e.g. changes in the paying office or appropriation data, changes to Government or ABC personnel identified in the Agreement, etc.), no signature is required by ABC.

ARTICLE IV. AGREEMENT ADMINISTRATION

Unless otherwise provided in this Agreement, approvals permitted or required to be made under this agreement may be made only by the government Agreements Officer.

Administrative and contractual matters under this Agreement shall be referred to the following representatives of the parties:

MILITARY CUSTOMER: (INSERT NAME) (Agreements Officer)
(INSERT TELEPHONE NUMBER)

ABC: (INSERT NAME) (ABC Administrator) (INSERT TELEPHONE NUMBER)

Technical matters under this Agreement shall be referred to the following representatives:

MILITARY CUSTOMER: (INSERT NAME) (Program Manager) (INSERT
TELEPHONE NUMBER)

ABC: (INSERT NAME) (INSERT TITLE) (INSERT TELEPHONE NUMBER)

Each party may change its representatives named in this Article by written notification to the other party.

ARTICLE V: OBLIGATION AND PAYMENT

A. Obligation

1. The Government's liability to make payments to ABC is limited to only those funds obligated under the Agreement or by modification to the Agreement. The government may obligate funds to the Agreement incrementally.

2. If modification becomes necessary in performance of this Agreement, pursuant to Article III, paragraph B, the government Agreements Officer and ABC Administrator shall execute a revised Schedule of Payable Milestones consistent with the then current Program Plan.

B. Payments

1. ABC has and agrees to maintain an established accounting system which complies with Generally Accepted Accounting Principles and the requirements of this Agreement, and shall ensure that appropriate arrangements have been made for receiving, distributing and accounting for Federal funds. An acceptable accounting system is one in which all cash receipts and disbursements are controlled and documented properly.

2. ABC shall document the accomplishments of each Payable Milestone by submitting or otherwise providing the Payable Milestones Report required by Attachment 2, Part D. ABC shall submit an original and one (1) copies of all invoices to the Agreements Officer for payment approval. After written verification of the accomplishment of the Payable Milestone by the military customer, and approval by the Agreements Officer, the invoices will be forwarded to the payment office within fifteen (15) calendar days of receipt of the invoices at (INSERT MILITARY SERVICE). Payment approval for the final Payable Milestone will be made after reconciliation (INSERT APPROPRIATE DFAS OFFICE) within fifteen (30) calendar days of (INSERT MILITARY SERVICE) transmittal. Subject to change only through written Agreement modification, payment shall be made to the address of the ABC Administrator set forth below.

3. Address of Payee: (INSERT NAME AND ADDRESS OF PAYEE)

4. Limitation of Funds: In no case shall the Government's financial liability exceed the amount obligated under this Agreement.

5. Financial Records and Reports: ABC shall maintain adequate records to account for all funding received under this Agreement and shall maintain adequate records to account for ABC funding provided for under this Agreement. Upon completion or termination of this Agreement, whichever occurs earlier, the ABC Administrator shall furnish to the Agreements Officer a copy of the Final Report required by Attachment 2, Part E. ABC's relevant financial records are subject to examination or audit on behalf of (INSERT MILITARY SERVICE) by the Government for a period not to exceed three (3) years after expiration of the term of this Agreement. The Agreements Officer or designee shall have direct access to sufficient records and information of ABC, to ensure full accountability for all funding under this Agreement. Such audit, examination, or access shall be performed during business hours on business days upon prior written notice and shall be subject to the security requirements of the audited party.

ARTICLE VI: DISPUTES

A. General

The Parties shall communicate with one another in good faith and in a timely and cooperative manner when raising issues under this Article.

B. Dispute Resolution Procedures

1. Any disagreement, claim or dispute between (INSERT MILITARY SERVICE) and ABC concerning questions of fact or law arising from or in connection with this Agreement, and, whether or not involving an alleged breach of this Agreement, may be raised only under this Article.

2. Whenever disputes, disagreements, or misunderstandings arise, the Parties shall attempt to resolve the issue(s) involved by discussion and mutual agreement as soon as practicable. In no event shall a dispute, disagreement or misunderstanding which arose more than three (3) months prior to the notification made under subparagraph B.3 of this article constitute the basis for relief under this article unless the official designated in paragraph 4, in the interests of justice waives this requirement.

3. Failing resolution by mutual agreement, the aggrieved Party shall document the dispute, disagreement, or misunderstanding by notifying the other Party (through the government Agreements Officer or Company Administrator, as the case may be) in writing of the relevant facts, identify unresolved issues, and specify the clarification or remedy sought. Within five (5) working days after providing notice to the other Party, the aggrieved Party may, in writing, request a joint decision by the (INSERT MILITARY SERVICE LEVEL OF AUTHORITY FAR ENOUGH REMOVED FROM THE PROGRAM TO MAINTAIN A GREATER LEVEL OF IMPARTIALITY) and senior executive (INSERT A LEVEL OF EXECUTIVE FAR ENOUGH REMOVED FROM THE PROGRAM TO MAINTAIN A GREATER LEVEL OF IMPARTIALITY) appointed by ABC. The other Party shall submit a written position on the matter(s) in dispute within thirty (30) calendar days after being notified that a decision has been requested. The (INSERT MILITARY SERVICE LEVEL OF AUTHORITY FAR ENOUGH REMOVED FROM THE PROGRAM TO MAINTAIN A GREATER LEVEL OF IMPARTIALITY) and senior executive (INSERT A LEVEL OF EXECUTIVE FAR ENOUGH REMOVED FROM THE PROGRAM TO MAINTAIN A GREATER LEVEL OF IMPARTIALITY), shall conduct a review of the matter(s) in dispute and render a decision in writing within thirty (30) calendar days of receipt of such written position. Any such joint decision is final and binding.

4. In the absence of a joint decision, upon written request to the (INSERT MILITARY SERVICE), made within thirty (30) calendar days of the expiration of the time for a decision under subparagraph B.3 above, the dispute shall be further reviewed. The (INSERT MILITARY SERVICE) may elect to conduct this review personally or through a designee or jointly with a senior executive (INSERT A LEVEL OF EXECUTIVE FAR ENOUGH REMOVED FROM THE PROGRAM TO MAINTAIN A GREATER LEVEL OF IMPARTIALITY) appointed by ABC. Following the review, the (INSERT MILITARY SERVICE) or designee will resolve the issue(s) and notify the Parties in writing. Such resolution is not subject to further administrative review and, to the extent permitted by law, shall be final and binding.

C. Limitation of Damages

Claims for damages of any nature whatsoever pursued under this Agreement shall be limited to direct damages only up to the aggregate amount of (INSERT MILITARY SERVICE) funding disbursed as of the time the dispute arises. In no event shall (INSERT MILITARY SERVICE) be liable for claims for consequential, punitive, special and incidental damages, claims for lost profits, or other indirect damages.

ARTICLE VII: PATENT RIGHTS (NOTE: Its is the military customer's philosophy to allow for innovation in processing, handling and ownership of rights regarding patents conveyed or first reduced to practice under this agreement if it can be proven to be more economically prudent. Offerors should request changes to the clause below in their proposal.

(NOTE: IN THE EVENT MARCH-IN RIGHTS ARE THE ONLY RIGHTS REASONABLY WARRANTED, THIS ARTICLE SHALL BE REPLACED WITH A CONCISELY WRITTEN ARTICLE DEFINING AND DESCRIBING MARCH-IN RIGHTS AND ANY OTHER APPROPRIATE TERMS .)

A. Definitions

1. "Invention" means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code.
2. "Made" when used in relation to any invention means the conception or first actual reduction to practice of such invention.
3. "Practical application" means to manufacture, in the case of a composition of product; to practice, in the case of a process or method, or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is capable of being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.
4. "Subject invention" means any invention conceived or first actually reduced to practice in the performance of work under this Agreement.

B. Allocation of Principal Rights

Unless ABC shall have notified (INSERT MILITARY SERVICE) (in accordance with subparagraph C.2 below) that ABC does not intend to retain title, ABC shall retain the

entire right, title, and interest throughout the world to each subject invention consistent with the provisions of this Article and 35 U.S.C. § 202. With respect to any subject invention in which ABC retains title, (INSERT MILITARY SERVICE) shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced on behalf of the United States the subject invention throughout the world.

C. Invention Disclosure, Election of Title, and Filing of Patent Application

1. ABC shall disclose each subject invention to (INSERT MILITARY SERVICE) within four (4) months after the inventor discloses it in writing to his company personnel responsible for patent matters. The disclosure to (INSERT MILITARY SERVICE) shall be in the form of a written report and shall identify the Agreement under which the invention was made and the identity of the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological, or electrical characteristics of the invention. The disclosure shall also identify any publication, sale, or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. ABC shall also submit to (INSERT MILITARY SERVICE) an annual listing of subject inventions.

2. If ABC determines that it does not intend to retain title to any such invention, ABC shall notify (INSERT MILITARY SERVICE), in writing, within eight (8) months of disclosure to (INSERT MILITARY SERVICE). However, in any case where publication, sale, or public use has initiated the one (1)-year statutory period wherein valid patent protection can still be obtained in the United States, the period for such notice may be shortened by (INSERT MILITARY SERVICE) to a date that is no more than sixty (60) calendar days prior to the end of the statutory period.

3. ABC shall file its initial patent application on a subject invention to which it elects to retain title within one (1) year after election of title or, if earlier, prior to the end of the statutory period wherein valid patent protection can be obtained in the United States after a publication, or sale, or public use. ABC may elect to file patent applications in additional countries (including the European Patent Office and the Patent Cooperation Treaty) within either ten (10) months of the corresponding initial patent application or six (6) months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications, where such filing has been prohibited by a Secrecy Order.

4. Requests for extension of the time for disclosure election, and filing under Article VII, paragraph C, may, at the discretion of (INSERT MILITARY SERVICE), and after considering the position of ABC, be granted.

D. Conditions When the Government May Obtain Title

Upon (INSERT MILITARY SERVICE) written request, ABC shall convey title to any subject invention to (INSERT MILITARY SERVICE) under any of the following conditions:

1. If ABC fails to disclose or elects not to retain title to the subject invention within the times specified in paragraph C of this Article; provided, that (INSERT MILITARY SERVICE) may only request title within sixty (60) calendar days after learning of the failure of ABC to disclose or elect within the specified times.

2. In those countries in which ABC fails to file patent applications within the times specified in paragraph C of this Article; provided, that if ABC has filed a patent application in a country after the times specified in paragraph C of this Article, but prior to its receipt of the written request by (INSERT MILITARY SERVICE), ABC shall continue to retain title in that country; or

3. In any country in which ABC decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceedings on, a patent on a subject invention.

E. Minimum Rights to ABC and Protection of ABC's Right to File

1. ABC shall retain a nonexclusive, royalty-free license throughout the world in each subject invention to which the Government obtains title, except if ABC fails to disclose the invention within the times specified in paragraph C of this Article. The ABC license extends to the domestic (including Canada) subsidiaries and affiliates, if any, within the corporate structure of which ABC is a party and includes the right to grant licenses of the same scope to the extent that ABC was legally obligated to do so at the time the Agreement was awarded. The license is transferable only with the approval of (INSERT MILITARY SERVICE), except when transferred to the successor of that part of the business to which the invention pertains. (INSERT MILITARY SERVICE) approval for license transfer shall not be unreasonably withheld.

2. The ABC domestic license may be revoked or modified by (INSERT MILITARY SERVICE) to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted consistent with appropriate provisions at 37 CFR Part 404. This license shall not be revoked in that field of use or the geographical areas in which ABC has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified

at the discretion of (INSERT MILITARY SERVICE) to the extent ABC, its licensees, or the subsidiaries or affiliates have failed to achieve practical application in that foreign country.

3. Before revocation or modification of the license, (INSERT MILITARY SERVICE) shall furnish ABC a written notice of its intention to revoke or modify the license, and ABC shall be allowed thirty (30) calendar days (or such other time as may be authorized for good cause shown) after the notice to show cause why the license should not be revoked or modified.

F. Action to Protect the Government's Interest

1. ABC agrees to execute or to have executed and promptly deliver to (INSERT MILITARY SERVICE) all instruments necessary to (i) establish or confirm the rights the Government has throughout the world in those subject inventions to which ABC elects to retain title, and (ii) convey title to (INSERT MILITARY SERVICE) when requested under paragraph D of this Article and to enable the Government to obtain patent protection throughout the world in that subject invention.

2. ABC agrees to require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by ABC each subject invention made under this Agreement in order that ABC can comply with the disclosure provisions of paragraph C of this Article. ABC shall instruct employees, through employee agreements or other suitable educational programs, on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U. S. or foreign statutory bars.

3. ABC shall notify (INSERT MILITARY SERVICE) of any decisions not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceedings on a patent, in any country, not less than thirty (30) calendar days before the expiration of the response period required by the relevant patent office.

4. ABC shall include, within the specification of any United States patent application and any patent issuing thereon covering a subject invention, the following statement: "This invention was made with Government support under Agreement No. MDA972-9*-3-00** awarded by (INSERT MILITARY SERVICE). The Government has certain rights in the invention."

G. Lower Tier Agreements

ABC shall include this Article, suitably modified, to identify the Parties, in all subcontracts or lower tier agreements, regardless of tier, for experimental, developmental, or research work.

H. Reporting on Utilization of Subject Inventions

ABC agrees to submit, during the term of the Agreement, an annual report on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by ABC or licensees or assignees of the inventor. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by ABC, and such other data and information as the agency may reasonably specify. ABC also agrees to provide additional reports as may be requested by (INSERT MILITARY SERVICE) in connection with any march-in proceedings undertaken by (INSERT MILITARY SERVICE) in accordance with paragraph J of this Article. Consistent with 35 U.S.C. § 202(c)(5), (INSERT MILITARY SERVICE) agrees it shall not disclose such information to persons outside the Government without permission of ABC.

I. Preference for American Industry

Notwithstanding any other provision of this clause, ABC agrees that it shall not grant to any person the exclusive right to use or sell any subject invention in the United States or Canada unless such person agrees that any product embodying the subject invention or produced through the use of the subject invention shall be manufactured substantially in the United States or Canada. However, in individual cases, the requirements for such an agreement may be waived by (INSERT MILITARY SERVICE) upon a showing by ABC that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that, under the circumstances, domestic manufacture is not commercially feasible.

J. March-in Rights

ABC agrees that, with respect to any subject invention in which it has retained title, (INSERT MILITARY SERVICE) has the right to require ABC, an assignee, or exclusive licensee of a subject invention to grant a non-exclusive license to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if ABC, assignee, or exclusive licensee refuses such a request, (INSERT MILITARY SERVICE) has the right to grant such a license itself if (INSERT MILITARY SERVICE) determines that:

1. Such action is necessary because ABC or assignee has not taken effective steps, consistent with the intent of this Agreement, to achieve practical application of the subject invention;

2. Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by ABC, assignee, or their licensees;

3. Such action is necessary to meet requirements for public use and such requirements are not reasonably satisfied by ABC, assignee, or licensees; or

4. Such action is necessary because the agreement required by paragraph (I) of this Article has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such Agreement.

ARTICLE VIII: DATA RIGHTS (NOTE: This article may be substantially revised depending on the facts of each agreement, i.e., "Limited rights" or "march-in rights" are warranted.

It is the government's philosophy to allow for innovation in processing, handling and ownership of right regarding technical data and computer software developed under this agreement if it can be proven to be more economically prudent. Offerors should request changes to the clause below in their proposal.

A. Definitions

1. "Government Purpose Rights", as used in this article, means rights to use, duplicate, or disclose Data, in whole or in part and in any manner, for Government purposes only, and to have or permit others to do so for Government purposes only.

2. "Unlimited Rights", as used in this article, means rights to use, duplicate, release, or disclose, Data in whole or in part, in any manner and for any purposes whatsoever, and to have or permit others to do so.

3. "Data", as used in this article, means recorded information, regardless of form or method of recording, which includes but is not limited to, technical data, software, trade secrets, and mask works. The term does not include financial, administrative, cost, pricing or management information and does not include subject inventions included under Article VII.

B. Allocation of Principal Rights

1. This Agreement shall be performed with mixed Government and ABC funding. The Parties agree that in consideration for Government funding, ABC intends to reduce to practical application items, components and processes developed under this Agreement.

2. ABC agrees to retain and maintain in good condition until (INSERT NUMBER OF YEAR) () years after completion or termination of this Agreement, all Data necessary to achieve practical application. In the event of exercise of the Government's March-in Rights as set forth under Article VII or subparagraph B.3 of this article, ABC agrees, upon written request from the Government, to deliver at no additional cost to the Government, all Data necessary to achieve practical application within sixty (60) calendar days from the date of the written request. The Government shall retain Unlimited Rights, as defined in paragraph A above, to this delivered Data.

3. ABC agrees that, with respect to Data necessary to achieve practical application, (INSERT MILITARY SERVICE) has the right to require ABC to deliver all such Data to (INSERT MILITARY SERVICE) in accordance with its reasonable directions if (INSERT MILITARY SERVICE) determines that:

(a) Such action is necessary because ABC or assignee has not taken effective steps, consistent with the intent of this Agreement, to achieve practical application of the technology developed during the performance of this Agreement;

(b) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by ABC, assignee, or their licensees; or

(c) Such action is necessary to meet requirements for public use and such requirements are not reasonably satisfied by ABC, assignee, or licensees.

4. With respect to Data delivered pursuant to Attachment 2 (and listed below), the Government shall receive Government Purpose Rights, as defined in paragraph A above. With respect to all Data delivered, in the event of the Government's exercise of its right under subparagraph B.2 of this article, the Government shall receive Unlimited Rights.

C. Marking of Data

Pursuant to paragraph B above, any Data delivered under this Agreement shall be marked with the following legend:

Use, duplication, or disclosure is subject to the restrictions as stated in Agreement MDA972- 9*-3-00** between the Government and ABC.

D. Lower Tier Agreements

ABC shall include this Article, suitably modified to identify the Parties, in all subcontracts or lower tier agreements, regardless of tier, for experimental, developmental, or research work.

ARTICLE IX: FOREIGN ACCESS TO TECHNOLOGY (NOTE: It is the government's intention to restrict this technology from flowing overseas without approval to ensure the economic and security issues have been resolved prior to any release. If the offerors desire proposed changes to this article they should explain rationale completely.)

This Article shall remain in effect during the term of the Agreement and for (INSERT NUMBER OF YEARS) () years thereafter.

A. Definition

1. "Foreign Firm or Institution" means a firm or institution organized or existing under the laws of a country other than the United States, its territories, or possessions. The term includes, for purposes of this Agreement, any agency or instrumentality of a foreign government; and firms, institutions or business organizations which are owned or substantially controlled by foreign governments, firms, institutions, or individuals.

2. "Know-How" means all information including, but not limited to discoveries, formulas, materials, inventions, processes, ideas, approaches, concepts, techniques, methods, software, programs, documentation, procedures, firmware, hardware, technical data, specifications, devices, apparatus and machines.

3. "Technology" means discoveries, innovations, Know-How and inventions, whether patentable or not, including computer software, recognized under U.S. law as intellectual creations to which rights of ownership accrue, including, but not limited to, patents, trade secrets, maskworks, and copyrights developed under this Agreement.

B. General

The Parties agree that research findings and technology developments arising under this Agreement may constitute a significant enhancement to the national defense, and to the economic vitality of the United States. Accordingly, access to important technology developments under this Agreement by Foreign Firms or Institutions must be carefully controlled. The controls contemplated in this Article are in addition to, and are not

intended to change or supersede, the provisions of the International Traffic in Arms Regulation (22 CFR pt. 121 et seq.), the DoD Industrial Security Regulation (DoD 5220.22-R) and the Department of Commerce Export Regulation (15 CFR pt. 770 et seq.)

C. Restrictions on Sale or Transfer of Technology to Foreign Firms or Institutions

1. In order to promote the national security interests of the United States and to effectuate the policies that underlie the regulations cited above, the procedures stated in subparagraphs C.2, C.3, and C.4 below shall apply to any transfer of Technology. For purposes of this paragraph, a transfer includes a sale of the company, and sales or licensing of Technology. Transfers do not include:

- (a) sales of products or components, or
- (b) licenses of software or documentation related to sales of products or components, or
- (c) transfer to foreign subsidiaries of ABC for purposes related to this Agreement, or
- (d) transfer which provides access to Technology to a Foreign Firm or Institution which is an approved source of supply or source for the conduct of research under this Agreement provided that such transfer shall be limited to that necessary to allow the firm or institution to perform its approved role under this Agreement.

2. ABC shall provide timely notice to (INSERT MILITARY SERVICE) of any proposed transfers from ABC of Technology developed under this Agreement to Foreign Firms or Institutions. If (INSERT MILITARY SERVICE) determines that the transfer may have adverse consequences to the national security interests of the United States, ABC, its vendors, and (INSERT MILITARY SERVICE) shall jointly endeavor to find alternatives to the proposed transfer which obviate or mitigate potential adverse consequences of the transfer but which provide substantially equivalent benefits to ABC.

3. In any event, ABC shall provide written notice to the (INSERT MILITARY SERVICE) Program Manager and Agreements Officer of any proposed transfer to a foreign firm or institution at least sixty (60) calendar days prior to the proposed date of transfer. Such notice shall cite this Article and shall state specifically what is to be transferred and the general terms of the transfer. Within thirty (30) calendar days of receipt of ABC's written notification, the government Agreements Officer shall advise ABC whether it consents to the proposed transfer. In cases where (INSERT MILITARY SERVICE) does not concur or sixty (60) calendar days after receipt and

(INSERT MILITARY SERVICE) provides no decision, ABC may utilize the procedures under Article VI, Disputes. No transfer shall take place until a decision is rendered.

4. In the event the transfer of Technology to Foreign Firms or Institutions which is NOT approved by (INSERT MILITARY SERVICE), ABC shall (a) refund to (INSERT MILITARY SERVICE) funds paid for the development of the Technology and (b) the Government shall have a non-exclusive, nontransferable, irrevocable, paid-up license to practice or have practiced on behalf of the United States the Technology throughout the world for Government and any and all other purposes, particularly to effectuate the intent of his Agreement. Upon request of the Government, the Consortium shall provide written confirmation of such licenses.

D. Lower Tier Agreements

ABC shall include this Article, suitably modified, to identify the Parties, in all subcontracts or lower tier agreements, regardless of tier, for experimental, developmental, or research work.

ARTICLE X: CIVIL RIGHTS ACT

This Agreement is subject to the compliance requirements of Title VI of the Civil Rights Act of 1964 as amended (42 U.S.C. 2000-d) relating to nondiscrimination in Federally assisted programs. ABC has signed an Assurance of Compliance with the nondiscriminatory provisions of the Act.

ARTICLE XI: EXECUTION

This Agreement constitutes the entire agreement of the Parties and supersedes all prior and contemporaneous agreements, understandings, negotiations and discussions among the Parties, whether oral or written, with respect to the subject matter hereof. This Agreement may be revised only by written consent of ABC and the government Agreements Officer. This Agreement, or modifications thereto, may be executed in counterparts each of which shall be deemed as original, but all of which taken together shall constitute one and the same instrument.

ARTICLE XII: INSURANCE

The contractor shall propose the appropriate type of insurance.

ARTICLE VIII: GOVERNMENT FURNISHED PROPERTY

The following Government property, information, equipment, facilities and services shall be provided upon the written approval of the cognizant agreement officer:

(Offerors will list all desired GFE, GFP, GFI, GFF, and GFS.)

(a) The Government will use best efforts to deliver to the Contractor, at the time and locations stated in this contract, the Government-furnished property stated in this contract, the Government-furnished property described in the Schedule or specifications.

(b) Title to Government-furnished property will remain with the Government. The Contractor will use the Government-furnished property only in connection with this contract. The Contractor will maintain adequate property control records in accordance with sound industrial practice and will make such records available.

(c) Upon delivery of Government-furnished property to the Contractor, the Contractor assumes the risk and responsibility for its loss or damage, except --

- (1) For reasonable wear and tear;
- (2) To the extent property is consumed in performing this agreement; or
- (3) As otherwise provided for by the provisions of this agreement.

(d) Upon completing this contract, the Contractor will follow the instructions of the Agreements Officer regarding the disposition of all Government-furnished property not consumed in performing this contract or previously delivery to the Government. The Contractor will prepare for shipment, deliver f.o.b. origin, or dispose of the Government property, as may be directed or authorized by the Agreements Officer. The net proceeds of any such disposal will be credited to the agreement price or will be paid to the Government as directed by the Agreements Officer.

ARTICLE XIV: WARRANTIES

(Offerors will provide appropriate commercial warranties)

ARTICLE XII: ORDER OF PRECEDENCE

In the event of any inconsistency between the terms of this Agreement and language set forth in the Statement of Work, the inconsistency shall be resolved by giving precedence in the following order: (1) The Agreement, (2) Attachments to the Agreement.

REPORT REQUIREMENTS

A. QUARTERLY REPORT

On or before ninety (90) calendar days after the effective date of the Agreement and quarterly thereafter throughout the term of the Agreement, the company shall submit or otherwise provide a quarterly report. Two (2) copies shall be submitted or

otherwise provided to the (INSERT MILITARY SERVICE) Program Manager, one (1) copy shall be submitted or otherwise provided to the government Agreements Officer and one (1) copy shall be submitted or otherwise provided to (INSERT MILITARY SERVICE PM). The report will have two (2) major sections.

1. Technical Status Report. The technical status report will detail technical progress to date and report on all problems, technical issues or major developments during the reporting period. The technical status report will include a report on the status of consortium collaborative activities during the reporting period.

2. Business Status Report. The business status report shall provide summarized details of the resource status of this Agreement, including the status of the contributions by the Company/Consortium participants. This report will include a quarterly accounting of current expenditures as outlined in the Annual Program Plan. Any major deviations shall be explained along with discussions of the adjustment actions proposed. The report will also include an accounting of interest earned on Government funds, IF ANY. The Company/Consortium is reminded that interest is not expected to accrue under this Agreement. In the event that interest does accrue on Government funds, the Company/Consortium is required to provide an explanation for the interest accrued in the business report. Depending on the circumstances, the Payable Milestones may require adjustment. In any event, the Government reserves the right to require interest amounts earned in excess of \$250 per year to be remitted at periodic intervals to be agreed upon by both Parties. All such interest rebates shall be made payable to the United States Treasury.

B. ANNUAL PROGRAM PLAN DOCUMENT

The company shall submit or otherwise provide to the (INSERT MILITARY SERVICE) Program Manager one (1) copy of a report which describes the Annual Program Plan as described in Article III, Section D. This document shall be

submitted not later than thirty (30) calendar days following the Annual Site Review as described in Article III, Section D.

C. SPECIAL TECHNICAL REPORTS

As agreed to by the Company/Consortium and the (INSERT MILITARY SERVICE) Program Manager, the company shall submit or otherwise provide to the (INSERT MILITARY SERVICE) Program Manager one (1) copy of special reports on significant events such as significant target accomplishments by Company/Consortium Members, significant tests, experiments, or symposia.

D. PAYABLE MILESTONES REPORTS

The company shall submit or otherwise provide to the (INSERT MILITARY SERVICE) Program Manager, documentation describing the extent of accomplishment of Payable Milestones. This information shall be as required by Article V, paragraph B and shall be sufficient for the (INSERT MILITARY SERVICE) Program Manager to reasonably verify the accomplishment of the milestone of the event in accordance with the Statement of Work.

E. FINAL REPORT (NOTE: The Final Report is the last Payable Milestone for the completed Agreement.)

1. The company shall submit or otherwise provide a Final Report making full disclosure of all major developments by the Company/Consortium upon completion of the Agreement or within sixty (60) calendar days of termination of this Agreement. With the approval of the (INSERT MILITARY SERVICE) Program Manager, reprints of published articles may be attached to the Final Report. Two (2) copies shall be submitted or otherwise provided to the (INSERT MILITARY SERVICE) Program Manager and one (1) copy shall be submitted or otherwise provided to (INSERT MILITARY SERVICE)/(INSERT PROGRAM OFFICE. One (1) copy shall be submitted to the Defense Technical Information Center, Attn: DTIC-O, 8725 John J. Kingman Road, Suite 0944, Fort Belvoir, VA 22060-6218.

2. The Final Report shall be marked with a distribution statement to denote the extent of its availability for distribution, release, and disclosure without additional approvals or authorizations. The Final Report shall be marked on the front page in a conspicuous place with the following marking:

"DISTRIBUTION STATEMENT B. Distribution authorized to U.S.

Government agencies only to protect information not owned by the U.S. Government and protected by a contractor's "limited rights" statement, or received with the understanding that it not be routinely transmitted outside the U.S. Government. Other requests for this document shall be referred to (INSERT MILITARY SERVICE)/Technical Information Officer."

SCHEDULE OF PAYMENTS AND PAYABLE MILESTONES

<u>Task</u>	<u>Month</u>	<u>Payable Milestones</u>	<u>Military Service Payment</u>	<u>Company/Consortium Payment</u>
1	(Data entered as appropriate)			

FUNDING SCHEDULE

A. PROJECTED PROGRAM FUNDING COMMITMENTS

	<u>Service Funding</u>	<u>Company/Consortium Contribution</u>
FY 9*	\$	\$
FY 9*	\$	\$
TOTALS	\$	\$

B. CONSORTIUM MEMBER CONTRIBUTIONS (If needed)

<u>Member</u>	<u>Contribution</u>
Company A	\$
Company B	\$
Company C	\$
Company D	\$
TOTALS	\$

STATEMENT OF WORK

(Initial Program Plan)

Task 1: (Data entered as appropriate)

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